

The problem of rural health and medical aid has never before been presented to us in its diverse aspects and variety of complications as it is at present before us. Modern civilization and usage and the existing political systems have given it a more social than individual form, and the responsibility of the health of the people along with other economic responsibilities is now mostly borne by Governments. The immediate outcome of political awakening appears to be that the public has the tendency to lay the blame of its mistakes and shortcomings at the door of the government.

Medical aid in the villages has always been provided from the earliest times, but its nature, before the present age, had been generally individualistic. Hippocrates, the father of medicine, used to wander about in villages, seek out patients and treat them in their homes. Charak has given necessary directions with regard to the health of the rural population and areas. Avicenna has laid down the criteria for choosing a place for human habitation. Kautilya and Ibn Khaldun have discussed the definition of a village and the habits and characteristics of the villagers. In the days of monarchy and feudalism also the villages and villagers were not neglected. Along with the establishment of hospitals in the cities, physicians were deputed to carry medicaments to the villagers. During the prevalence of epidemics the affected regions were provided with medical aid. Charitable persons vied with one another to have a share in such works. Hakeems and Vaidas also did not spare themselves the trouble of village life. But all these services were individualistic and of a limited nature. There was no organization or extensiveness.

When the history of the attention of the State to the problem of rural health and medical aid is examined it is plain to see that the State has not only gone through many ups and downs in the solution of this problem, but it has taken considerable time to arrive at one. Another important aspect of it is that the countries which may be considered to have solved this problem are not populous and are bracketed with high income groups. Those containing the greatest population are Russia and the U.S.A. each of which has not more than half of the population of India. Therefore this problem assumes a very important and extensive magnitude in our country.

In India the first organized attempt at an inquiry into this problem on governmental level is embodied in the Report of the Health Survey and Development Committee, in which the consistent recommendations were made and which subsequently formed the basis of the programmes of health and medical and of the National Extension Services and Community Development Blocks with occasional modifications.

A Community Development Block is a multipurpose project in which development of agriculture and its resources have fundamental place, and next to it economic, cultural and social development of the rural areas and population has been kept in view. It must be stated that the problem of rural health and medical aid is also comprised in the latter idea, which may include maternal and child-health care, including family planning, general health, health education, environmental sanitation, control of communicable diseases and collection of vital statistics.

Each Community Development Block includes the establishment of a primary health centre staffed with one medical officer, one compounder, one lady health visitor, four nurses, one sanitary inspector and two general atten-

dants. One block is comprised of 100 villages, having population of about 66,000, and an estimated area of 200 square miles. Attempt is made to provide three subcentres in a block in each of which one midwife is employed. One such subcentre includes 25 villages containing a population of about 16,000, and an estimated area of 40 square miles.

This short description of a Community Development Block may help in a theoretical stocktaking of the position of health and medical aid in it and of the "facilities" provided to the villagers by it. By the end of the Third Five Year Plan it is proposed to establish about 5,000 such Community Development Blocks and subsidiary health centres. No one is in a position to answer satisfactorily the question—What will the actual shape and nature of the "facilities" provided by this programme to the villages be when this programme involving the expenditure of millions of rupees has fortunately been carried out in practice?

Under the circumstances the question of the mode of solution of the problem of rural health and medical aid comes to the fore. One mode is that adopted by the Government, the full success of which is not believed in by anybody. Another mode is that of enabling the rural population itself to bear the responsibility of the solution of all of its economic, social, health and medical aid problems and to become capable of self-help.

Mahatma Gandhi, the pulse-feeler of the nation, always advocated the latter mode. It is not necessary here to quote the expressions of his opinion on other subjects, but his feelings on the subject of rural health and medical aid expressed in the foreword to Dr Gupta's *Home and Village Doctor* at Sevagram in 1940 which are specially in place may be quoted:

"It was during my second imprisonment here that I wrote and asked medical friends to give me a book after the

the of the excellent publication, Moore's *Family Medicine*.
wanted, however, something better and more indigenous in
the sense that a layman serving in villages could handle it
with ease."

However, Gandhiji was not quite satisfied with this
attempt of Dr Gupta as he expressed it further in the same
foreword.

Dr Gupta based his book on the medicines which are
generally used in the allopathic system, and in the treatment
used almost the same media as are mentioned in other books
of that system. It is a pity that at that time or any other time
Gandhiji could not be informed that in the villages them-
selves 160 or more such substances or drugs were available
which were or could be used as medicine and by means of
which 90% of the ailments could be safely treated in the villa-
ges by the villagers or a slightly trained person. This dis-
covery would have been very welcome to the Father of the
Nation and he would have readily recommended it for
thorough trial

Village Pharmacy, which embodies the details and
amplification of the discovery, has, for convenience, been
divided into two parts.

Part I deals with the general principles of health, air,
water, food, exercise, sleeping, bathing, clothing, hygiene, sexual
matters, pre-natal, per-natal and post-natal care of the mother
and child. Other measures are mentioned as are practi-
cally useful and the readers can get clear conceptions from
them. In this part are also given the 166 drugs and subs-
tances which are generally available in the country and
which we have adopted as the basis of rural medical aid. At
first the scientific name and the names which they bear in
regional languages are given, and then, after a brief intro-
duction, such of their medicinal properties are mentioned as

are most reliable. Of these, 140 are of vegetable origin, 9 of animal, and 16 of miscellaneous and mineral origin. As many as 75 herbs are illustrated. The chapter on hygiene has been made interesting with the help of 88 useful sketches and photographs.

Part II deals with treatment. Chapter I on accidents deals specially with such accidents as generally take place in the village, and the treatments mentioned are such as can be carried out in a village. Methods are given of utilizing common things found in village. In this chapter ailments have been briefly noticed and their treatment given with the drugs and substances available in the country which have been made the basis of this publication. But sometimes those common drugs have also been included which are available in the cities. Diseases peculiar to men, women, pregnancy and child-birth and infancy are contained in separate sections with illustrations. In this part are mentioned 203 diseases and their treatment. In the end are given recipes for the preparation of some medicines and foods.

In both parts of this book along with complete list of contents indexes have been included, for the sake of convenience, of the scientific names and regional names of drugs and substances and of the diseases.

In short, this is the first publication of its kind on this virgin subject which has been compiled with regard to the practical side only of the problem of rural health and medical aid and in which attempt has been made to solve the local problem on the spot.

For the present this book is being published only in three languages, English, Hindi, and Urdu. But it is intended to publish it soon in other regional languages after suitable modification. Our researches on the problems of rural

and medical aid will continue in future also, especially with reference to the medication presented in this book. We shall arrange to collect the necessary evidence. It will, thus, be possible that besides aviaional medicine, vocational medicine, military medicine, industrial medicine, and social medicine etc. a "rural medicine" may also come into existence, without which the problem of Indian village does not seem, in our opinion, to find a solution.

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INTOXICANTS

Wine. — Toddy of palmyra palm. — Cannabis, charas and opium. — Tobacco.

CALLS OF NATURE

PHYSICAL EXERCISE

SLEEP

BATHS

DRESS

CLEANLINESS

Cleanliness of the body. — Cleanliness of nails. — The house and its cleanliness. — Construction of the house. — Cleaning the house. — Cleanliness of the village, lanes, and streets. — Burial and burning grounds.

SEXUAL DESIRE

PREGNANCY AND PREGNANT WOMAN ..

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birth.—Directions for the midwife.—Cutting the cord.—Bleeding of the cord.—Suppuration of the cord.—Swelling of the umbilicus.—Expulsion of placenta.—After the expulsion of placenta.

CARE OF THE CHILD

Healthy baby.—A half-dead baby.—Bathing the baby.—Diet of the baby.—Mother's milk.—Feeding time.—Suckling by wet-nurse.—Unsuitability of milk.—Ass's, goat's or buffalo's milk.—Quantity of milk.—Method of artificial feeding.—Feeding bottles.—Cleanliness of the vessels.—Milch-cattle.—Correcting the milk.—Weaning the child.—Drinking water.—Teething.—Child's sleep.—Crying of the child.—Child and opium.—Child's nipple.—To hold the child in the lap.—Hair and nails of the child.—Child's exercise.—Walking.—Toys.

DRUGS AND SUBSTANCES COMMONLY FOUND IN VILLAGES

INDEX OF HINDUSTANI & COMMON ENGLISH NAMES OF DRUGS AND SUBSTANCES .

INDEX OF BOTANICAL AND LATIN NAMES OF DRUGS AND SUBSTANCES .. .

TABLE OF EQUIVALENT WEIGHTS

| <i>Indian System</i> | | <i>British System</i> | | <i>Metric System</i> |
|-----------------------------|---|----------------------------|---|----------------------------|
| 1 Chawal | = | $\frac{1}{4}$ grain | = | $1\frac{1}{2}$ Centigrams. |
| 1 Ratti | = | 2 grains | = | $1\frac{1}{4}$ Decigrams |
| 1 Masha | = | $15\frac{1}{2}$ grains | = | 1 Gram |
| 1 Tola | = | 186 grains | = | $11\frac{1}{2}$ Grams |
| 1 Chhatank | = | 2 oz. (approx.) | = | 6 Decagrams |
| 1 Pao ($\frac{1}{4}$ Seer) | = | 8 oz. (approx.) | = | 24 Decagrams (approx.) |
| 1 Seer | = | 2 Pounds $\frac{3}{4}$ oz. | = | $9\frac{1}{2}$ Hectograms |

Village Physician

HEALTH

HEALTH, it has been aptly remarked, is better than wealth. It is the fountain-head of all happiness. An unhealthy person, though living, is deprived of the charms of life, and is incapable of serving himself, his fellowmen and his country. In fact, he becomes a burden and a strain on the society.

A patient not only himself is incapable of useful work but keeps his attendants also away from lucrative business. When the bread-winner of a family falls ill, the whole family suffers and is deprived of the means of subsistence. When a person contracts a contagious disease, he can involve his family, relatives, attendants and friends as well. He can thus be the source of spreading this disease to the neighbourhood and of its assuming an epidemic form.



In fact health is a valuable gift of God, but it is a pity that its value is not recognised and the importance due to it not given. In pursuit of pleasure people neglect their health. While the value of property, possessions and riches is generally recognised, that of health is ignored and principles of preservation of health are not learnt or acted upon. While measures are taken to safeguard money and possessions, no precautionary measures are considered necessary for health although without health no money or possessions can be acquired or enjoyed.

Urban population has become somewhat health conscious. There are municipalities which cater to a large extent to the health of the citizens by providing clean water, sanitation, supervision over food articles and imparting knowledge of healthy-living. The rural population, however, lacks all these.

It may be argued that the villagers, in spite of their ignorance of the principles of healthy living, are generally much healthier and more robust than townspeople and therefore they do not require any health service or education. No



doubt some villagers are robust and healthy but their number is small. These are the people who work in their fields, in refreshing air and sunshine, eat plain nutritious food like milk, curd, butter, skimmed-milk and jaggery. Other villagers

who work in their narrow, ill-lighted and ill-ventilated homes and hard-working ill-fed or field labourers do not enjoy good health. It is because they work hard but do not get sufficient nourishment ; not to speak of milk and butter, they do not even get sufficient bread to satisfy their hunger. The plight of village women and children is worse even. Most women suffer from female diseases, there are no facilities for their treatment, and they are condemned to lead a miserable life. So with the children. Many die at birth; others fall a prey to some disease or the other during their infancy.

Even if it is admitted that the villagers are healthy in spite of their neglect and ignorance of principles of hygiene, still the knowledge and following of these principles cannot be without advantage. An improvement in health and hygiene may follow the introduction of these principles, mental calibre may be raised and we may have better leaders, more efficient physicians, lawyers, teachers, scientists, government officials etc. in future.

“Prevention is better than cure” is a cast-iron axiom. As long as people preserve sound health they are generally unmindful of it, but when they fall ill owing to this neglect they regret it. Besides physical discomfort, they spend money on treatment, cause inconvenience to the members of their family and, if they do not recover their health, bring misery on them. Every person must, therefore, take care of his health. Parents should strive to have as good health as possible so that their children may be healthy and sturdy. A healthy person not only lives free of disorders but also lives longer. Four centuries ago when Europeans were ignorant of the principles of hygiene their average span of life was short, but now when they have acquired knowledge of the same and follow them closely they have doubled the span.

Principles of Hygiene

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VILLAGE PHYSICIAN

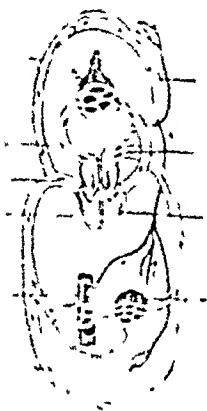
cleanliness of the home and clothes, normality in all mental and physical exertions and after work relaxation and exercise, regularity in attending the calls of Nature are the points acting upon which according to the principles of hygiene one can safeguard one's life and make oneself healthy and sturdy.

Fresh Air and Light

Air and light are the most essential things for all life. One can live without food for weeks even, but without air one cannot live for more than 5-7 minutes. It is not necessary for human beings alone; all animal and vegetable life depends on air and light. If a living organism is kept in a small box or in any other enclosure where it is deprived of air, then it will die soon due to suffocation. Accordingly, if a plant is deprived of air and light, its colour will change to yellow, its growth will be hindered and eventually it will perish. Similarly, if human beings do not get fresh and open air for a long time, their health is adversely affected and they fall a prey to different diseases. Women and children living in thickly populated cities in narrow and dark houses become sallow (anaemic). Their general condition deteriorates, most of them suffer from such dangerous diseases as phthisis and tuberculosis. The only cause of all this is deprivation of fresh air and light. The villagers should thank God that they have ready access to both these things. If they observe other rules of healthy living in addition to the above two gifts of God, they greatly improve themselves physically. Though the villagers who work in the open fields and jungles get fresh air and light while at work, yet when they go home after the day's hard labour at night, they do not get adequate supply of pure and fresh air, because their houses are not well ventilated, they make fire and keep animals inside.

When we breathe, our lungs have to make two movements. In the first movement they are compressed and the

poisonous air is exhaled and at the same time by the second movement air is inhaled. The inspired air purifies the blood and keeps us healthy, if it is fresh and clean. For this reason it is not advisable to breathe the air which is contaminated with smoke and other filthy things. Do not sleep with closed doors and windows at night, and do not produce smoke in the house. Sleeping with covered face is not healthy because in this way the exhaled air is retained in the covering and the supply of fresh air is prevented. In the same way the house in which there



are cattle and many persons is unhealthy and breathing its air is injurious to health because it is vitiated. In the night some poisonous gases are given off by the plants and therefore it is not wholesome to sleep under the trees at night. The air of an abandoned house becomes foul and before entering such a house the doors and windows should be left wide open for a while and then after thorough cleaning it should be used for habitation. In the same way if wells, godowns and underground cellars are left unused for a long time they are filled with poisonous air and are a cause of accidents. As soon as one enters them one succumbs to the poisonous air or becomes senseless. Therefore, as long as the poisonous air is not driven off by keeping them open, one should not attempt to enter them.

W A T E R

For the maintenance of life water comes next to air in importance. One can live for weeks without food but without water it is impossible to live for more than a few days. Not

only human beings but all living organisms live on water. Owing to water all kinds of trees, plants and grasses remain fresh which is a sign of life in them. If they do not get water they fade and eventually die. Bountiful Nature has provided air and water in abundance in the world. Two-thirds of the weight of the human body comprises of water and from the body of a young and normal man nearly $2\frac{1}{2}$ seers of water is discharged daily in the form of sweat, urine and other excreta. It is water which helps in the digestion of food and in the preparation of its extract. After the formation of blood the components of food are transported by means of water to the delicate tissues and furnish nutrition and energy to the body. It is water which eliminates the poisonous matter from the body in the form of sweat, urine and other excreta. But this water can only be useful and health-giving when it is pure and taken in the right way and at appropriate time.

Appropriate Time of Drinking Water

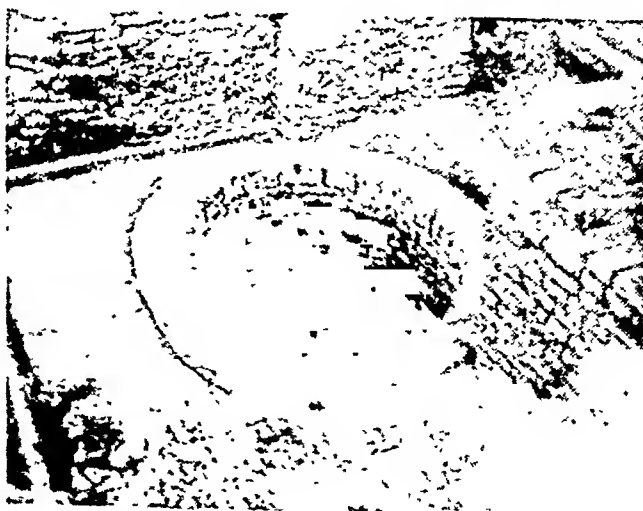
A short answer to the question is : in normal condition when one feels thirsty one should drink water. The normal condition of health is essential because some times due to indigestion and other disorders false thirst is felt. The false thirst is not quenched even after drinking water. If in such a condition water is taken repeatedly, it will cause more harm than good. Water helps the digestion of food and transports it to the small and delicate tissues, but it does not mean that plenty of water should be taken along with food. The food which one takes already contains a large quantity of water and it is not necessary to drink extra water. However, if at the time of taking food one feels thirsty and it is considered at all necessary to drink water then half a glass of water is sufficient. If more water is required, a glass of water may be taken in small quantities while taking food. It is not advisable to drink water immediately before and after taking food as it upsets the

digestion. When one does so habitually the power of digestion is permanently weakened. The appropriate time for drinking water is after three hours of taking food.

It is not without harm to drink water just after hard labour and difficult work. If you have done hard work or are coming from a journey, and you are feeling thirsty, then sit in a shadowy place for some time and take rest and when you feel somewhat better, sip a glassful of water. A large quantity of water should not be taken at a time. If the thirst is not quenched by drinking water once, then after sometime it may be taken for the second time.

It is not advisable to drink water just after awakening from sleep or on empty stomach, but if the thirst is very severe then a small quantity of water may be taken little by little to quench it. One should abstain from drinking water after eating fruit, chewing sugarcane and also after taking food prepared in oil, because it causes indigestion and brings on cold catarrh and cough.

Pure Water.—Only clear and pure water should be taken as it is useful and health-giving. The properties of such a water are that it is clear and transparent, and has no taste or colour or odour.



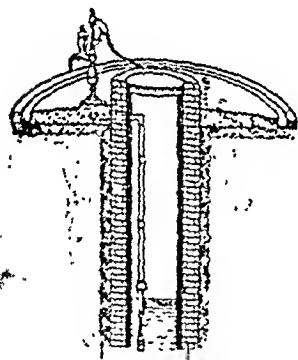
Well Water.—
In villages it is

the water of the wells which is drunk. The water of the deep and pucca wells built of bricks and plaster is best. The water of the less deeper wells is rendered unsuitable by the contamination with the filthy water of the surface of the earth by the process of oozing. Such water is deleterious for health and one is afflicted with indigestion, cholera, diarrhoea and constipation by using it.

When one wants to build a well for getting water suitable for drinking, then the following points should be kept in mind.

1. Comparatively a high site should be chosen to build a well and it should not be dug near a pit or a pond or in a marshy place.

2. The depth of the well should not be less than 50 feet and it should be built with pucca bricks and mortar and be plastered inside with cement or lime.



3. The platform of the well should be raised at least two feet from the surface of the earth and around it a 4-5 feet wide sloping margin should be constructed so that the dirty water may drain away from the well.

4. While drawing water from the well some of it falls back into it which causes turbidity. To

avoid it all round the sloping margin a pucca channel should also be constructed draining into a tank so that water may be collected in the tank by the drain and can be used for other purposes.

5. There must be placed a shade made of tinned sheet on the well or it may be covered with a gauze and only a place for buckets and pitchers may be left open. This will prevent dirt and filth entering into the well.

Water of Pools, Ponds, Tanks, Canals and Rivers

In our country there are certain areas where it is very costly to construct a well, because, in spite of digging a very deep well, the quantity of water obtained is scanty and at the same time it is costly and time-consuming to draw water. For this reason the inhabitants of such places collect water in pools, ponds or tanks in



rainy season and use it for drinking, bathing and washing etc. Firstly, in the rainy season filth and other kinds of dirty things get access to the water of these storage places by the process of dissolution and transportation. Secondly, they bathe their cattle in them and thereby these animals add their excreta to the water. Therefore, the water of such



pools and ponds never remains fit for drinking. But the people of those places have no choice but to drink it and hence fall prey to various diseases. If due precautions are taken in storing the water in rainy season and it is collected in pucca pond or tank then it is of somewhat better type. But even then it is better to purify the water so collected for drinking.

Methods of Purification of Water

In big cities the water, which is supplied by pipes, is purified by the installation of huge machines at the river bank, but in towns and villages this method is not feasible. Therefore, if the well-water is unfit or the water of the pond, river or canals is dirty then it should be purified by the following processes before using it for drinking.

1. The best and easiest method for the purification of impure water, whether it is of well, pond or river, is to boil and cool it. Some people filter the water through a muslin cloth and consider it clean but it is a blunder because filtration can remove only the rubbish and bigger organisms, but other dirty things which are dissolved in it cannot be eliminated. The micro-organisms which are not seen by naked eye cannot be got rid of merely by such filtration and they remain in the water and find their way into the body of the user and hence become a cause of illness.

2. The water should first be left in a vessel for 5-6 hours so that the particles of dust and sand may settle down. Now, if this water is 5 seers then add to it about 4 ratti of finely powdered alum. In this way the fine dirt suspended in water will settle down. The clear upper layer of water may be decanted and used for drinking.

3. Clearing-nut (Nirmali) is a seed having a but like round shape. About $1\frac{1}{2}$ ratti of the seed should be ground on a stone and added to 5 seers of water.

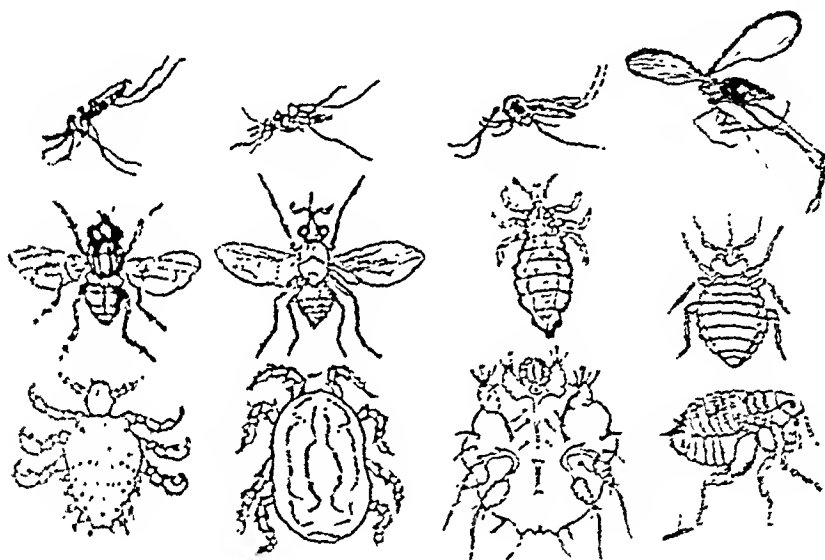
dirt and other things contaminating the water to settle down and the water will become quite clear and transparent.

4. Generally well-water becomes bad in rainy season and when cholera breaks out it is because of the unhealthy water of the wells. Though in such a condition the water may be purified by boiling, yet it is better to take out whole of the water of the well and clean the well thoroughly. For this purpose potassium permanganate is used. It imparts a red colour to water on dissolving in it. For a small well one chhatank and for a big one two chhatank of this chemical will do. This chemical should completely be dissolved in a bucketful of water and added to the well and then it should be well agitated by moving it about and nobody should be permitted to draw water. When twenty-four hours have elapsed after the addition of the chemical, the whole of the water of the well (if this is not possible then $\frac{1}{3}$ rd or $\frac{1}{4}$ th of the upper layer) should be taken out. All the germs present in the water will be killed by the effect of the chemical and will come up on the upper surface of the water and the water left after taking it the upper portion will be quite clear. If this chemical is not available then in place of it lime (which is used for white-washing the buildings) may be used to purify the water. The method of use is the same but to a small well 20 seers and to a big well one maund of lime should be added.

ANIMALCULES AFFECTING HUMAN HEALTH

The animal life flourishing in the human environment can be divided into two broad classes—saprophytic and parasitic. Saprophytic are those which live in symbiosis with man and are useful to him in several ways. Some fulfil his nutritional requirements, others are useful for curative purposes and some contribute material for his protection against weather.

On the other hand parasitic are those which live at the expense of human beings, adversely affect his health, and are the cause of various ailments. Such life resides in the habitations of man himself. Some of them suck human blood and thrive upon it and have fixed their abode in the clothing, bedding and sleeping accommodation of man. The noteworthy among this class are the flies, mosquitoes, fleas, lice, bed-bugs, mice, ants, and white-ants. In the following sections we describe their evil and the method of averting it.



Flies

Flies which whisk about in our homes are very dirty and disgusting. They sit on faeces, phlegm and other rotting and decomposing material, and lick it up; the germs infesting this refuse attach themselves to their mouth and legs and are carried to us when these flies sit on our mouth, nose and food. These flies not only damage the health of a person but also involve him in quickly fatal diseases. Such



dangerous diseases as cholera, dysentery and typhoid fever are carried by flies. When they sit on the excreta of patients such as stools, vomit or phlegm, their legs and mouth become contaminated with this filth carrying the infective germs, and when they fly off and sit on the nose, mouth or food of a person, infection is thus communicated to him. The germs of cholera and typhoid finding their way into the system of the flies, in stead of being killed, multiply in it and are excreted with the refuse. Therefore articles on which flies sit and excrete their refuse become depositories of these germs. In this manner flies sitting on the excreta of patients suffering from tuberculosis spread the germs of this disease for a sufficiently long time. Therefore it is the duty of every person to adopt means of keeping off the flies for the protection of himself, his family and, in fact, of the whole population.

Methods of Keeping off Flies

Each fly lays at one time between one hundred and one hundred and fifty eggs, and in the summer season these eggs generally hatch in 10 days and mature flies grow from them. The fly does not live longer than six weeks and during this span of life lays eggs 2-6 times. Therefore it can easily be calculated how rapidly the fly multiplies its progeny. The flies deposit their eggs on animal excreta, rotting vegetables or fruit, household refuse or in mud. Therefore the first and most urgent requirement for keeping off the flies is cleanliness in the houses. The walls and courtyard should be kept clean. No refuse should be allowed to accumulate and no rotting material stored. If temporarily some refuse has to be stored, it should be covered over with lime or ashes, and removed as soon as possible. All articles of food should be kept covered and if possible stored on shelves fitted with wire gauze. Bits of food or sweetmeats

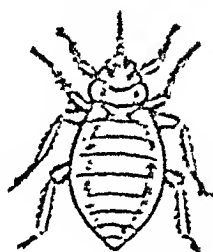
should not be thrown about carelessly and if by chance some fall down they should be cleaned at once.

The animal house should be separate and there also the refuse should not be allowed to accumulate. Ashes or sand should be strewn daily to keep the place clean.

Latrines and gutters should be sprayed with phenyl; this kills the germs infecting the filth.

Bedbugs

This is a very noxious animal. When a person tired out by day's work lays himself down to rest it comes out of its hiding place, inserts its sting into his body and sucks his blood. It shuns light. As long as there is light it hides itself, but as soon as the light is out it emerges and busies itself with its occupation. To the same degree as it is noxious and elusive is it also hard to kill. It lives in winter without food and motion in its hiding places hibernating for the most part of the year, only its outer frame surviving, but as soon as the spring comes and it gets an opportunity of sucking human blood it soon recovers, becomes fat, lays eggs, and multiplies its progeny.



Bedbugs are found in all countries of the world, but in advanced countries where there are effective arrangements for keeping the houses and habitations clean they are scarce. On the other hand in less advanced and backward countries they are found in plenty; especially are they plentiful in damp water-logged habitations where much attention is paid to cleanliness they thrive and multiply. In the cities they are seldom found, only those houses of the poor and the inmates of which often visit the dirty hotels in the cities. One of the chief complaints of the people in the villages is that the smell of the

cattle does not agree with them, and because the open air and light of the country is not favourable to them they do not thrive there.

Not only does the bite of a bug disturb the sleep of a person but it also leads to various diseases. Thus kala-azar (black fever), typhoid fever, phthisis, tuberculosis, plague, and some skin diseases are caused by its bite. When a person suffering from any of these diseases is bitten by a bug, the blood sucked by it conveys the germs of the disease into the body of the bug, and when this bug bites another person his blood becomes infected with these germs.

Methods of Getting Rid of the Bedbugs

Bedbugs generally reside in the crevices of the bed, lay their eggs there and multiply, but sometimes they infest the quilts, pillows, coverings, chairs and cracks in the walls. As soon as the light is out they creep out and seek their prey. If a house is so infested with bugs that no place is free from them, the house must be vacated for at least one year. The bugs will be killed on account of not having had access to human blood. If this cannot be done the following procedure should be adopted. If the plaster on the walls is cracked it should be removed and fresh plaster laid. Cracks in the floor and walls must be repaired. Dampness and darkness should be got rid of. D. D. T. should be sprayed once a week on the walls, floors and corners of the house, also in the joints of beds, chairs and other furniture. A few repetitions will eradicate the bugs. If the bugs infest only the beds and furniture these should be exposed to the sun for some days continuously, or washed with boiling water. The bugs will thus be killed. Methylated spirit diluted with water $2\frac{1}{2}$ times of it and poured into the crevices infested by bugs also kills them. Petrol, kerosene oil and turpentine oil also kill bugs. Mercury solution (one part in 500 parts) also kills them.

should be exposed to the sun sufficiently long, preferably for several successive days. All the fleas will be killed.

Lice

Lice are well-known parasites which infest the hair and clothing of persons and suck their blood, thus nourishing themselves. Lice are found on the bodies of those poor people who do not change or wash their clothes often nor do they keep their body clean by daily baths. Lice are of several varieties. A kind of lice are very small and infest the roots of hair and suck blood.



Lice lay eggs. The eggs of lice are called "Leekh" they produce lice within 2-3 weeks.

When lice sucking blood from one patient suck the blood of a healthy person the latter gets the infection and contract the disease.

Methods of Getting Rid of Lice

All the clothes infested by lice should be well-boiled in water, then soaped and washed. People should soap and wash themselves daily. If lice infest the head, besides daily bath the hair should be thoroughly washed and neem oil applied to them. Clean clothes should be put on. By continuing this process for a number of days the lice will be killed.

Six masha each of quicksilver and sulphur are triturated together, and when reduced to powder like antimony, kamcela should be added and triturated further with 3 times its quantity of mustard oil. Application of it kills lice of all sorts.

Mosquitoes

Mosquito is also one of the insects which plague people and suck their blood. It stings sleeping persons at night and

not only sucks their blood but also at the same time introduces germs of various diseases into their body.

Mosquitoes are of several varieties. Some variety of these on biting a person make him ill of meningeal fever, another variety of yellow fever. A well-known variety of mosquitoes is anopheles which induces malarial fever. This last variety is the most harmful to Indians. It is also known as malarial mosquitoes.



Mosquitoes lay eggs which hatch and bring forth adult mosquitoes in 40 days. The female lays about 150 eggs at a time. Mosquitoes mostly breed in the rainy season, and the favourite breeding grounds are lakes, ponds, springs, rivers, rivulets and ditches filled with water, on the sides of which grass is growing. Besides, other damp places also harbour them. If ditches filled with water are nearby or the houses are damp or drains are not kept clean such places also breed mosquitoes.

Mosquitoes are fond of sucking blood of other animals. Therefore they fly from other places to the habitation of man. Because a mosquito hates light it seeks dark corners in houses and hides itself behind almirahs and boxes. As soon as darkness sets in it emerges from its hiding places, hums around humans and animals, stings them and sucks their blood.

One peculiarity of mosquitoes is that they prefer black colour. That is the reason why they sting negroes and Indians more than white people and are attracted to persons wearing black socks or black boots.

The male mosquito sucks blood less often. It lives mostly on vegetables. The female on the other hand is fond of blood. She thrives on human blood. The characteristic of this mosquito is that she has a smaller and thicker proboscis, her legs are long and slender, the feet are small, light in colour having black spots. A very peculiar characteristic is

that when this mosquito sits on a wall its whole body does not make contact with it but the hind portion is raised upwards. On the other hand other kinds of mosquitoes keep their whole body at equal distances from the wall.

Safeguards Against Mosquitoes

Houses should be built on high plinth on sloping ground. There should be no rivers, rivultes, lakes, ponds or ditches filled with water in the neighbourhood. The courtyard should be kept clean and dry, no water should be poured here and there nor any refuse allowed to accumulate in it. The latrines and gutters should be cleaned daily and sprayed with phenyl or D.D.T. All corners of the house and backs of almirahs and boxes should be swept daily. The doors and windows should be covered with wire gauze or fine muslin curtains. If possible mosquito-net should cover the beds while sleeping at night, otherwise Eucalyptus Oil or the Oil of White Mustard may be applied to face, hands and feet while going to bed.

Electric fan by the bedside while going to sleep will also drive the mosquitoes away. It should also be remembered that the upper floors provide greater shelter from the mosquitoes than the ground floor. Apart from these, measures should be taken to destroy the mosquitoes.

Methods of Destroying Mosquitoes

The mosquitoes lay eggs at places where there is accumulation of water and where wild grass and reeds grow, for example puddles, pools and ponds. They also find damp spots where water is poured and there is refuse as good breeding-ground. The courtyard of the house and other parts, therefore, should be kept dry and dirt should not be allowed to collect in the house. If there is a well near the house, mud should not be allowed to form around it. To drain off the water that falls to the ground, drains should be cons-

tricted and looked after. Kerosene oil sprinkled on the surface of the water of pools, ponds and other watery places easily destroys the hatches of the mosquitoes. Half a chhatank of kerosene oil will be sufficient for fifteen square feet of the surface of water. A simple way of spreading kerosene oil is to tie a piece of cloth dipped in kerosene oil in the centre of a long rope and to ask two persons to catch the ends of the rope and walk around a pool or pond etc. in such a way that the oil-dipped cloth touches the entire surface of the water. This will spread the kerosene oil to the entire surface of the water.

Burning the leaves of neem tree or sending up fumes of phosphorous and myrrh also kills the mosquitoes and drives them away.

Ants and White-Ants

Some houses are infested with ants and white-ants which are produced from eggs. They hatch within a fortnight and immediately after emergence from the eggs seek their food. Their power of smell is extra-ordinary. As soon as the smell of things dear to them reaches them, they rush to it in battalions. Sugar, jaggery, sweet things and dead insects are their favourite foods. They sting the human beings and are thus able to transmit the poison of dead insects into the human body.



The white-ants destroy the doors, windows and the beams of the houses. Books and clothes are also devoured by the white ants.

Getting Rid of Ants & White-ants

To get rid of the ants and the white-ants, the walls of the houses must be plastered and the floor made of bricks. The mouths of the vessels containing sweet things like sugar,

and jaggery should be tightly sealed so that they can find no entry into them. If the kerosene oil or mustard oil is sprinkled on the spots where there are ants, it will drive them away. To protect the house from the white-ants, the ends of the beams should be painted with tarcoal and lime should be used in the construction of the house, apart from the walls and the floors being made of bricks and plaster.

Rats

Rats are a great nuisance to mankind. They destroy hundreds of thousands of maunds of grains, damage the crops, and entail great losses by gnawing clothes and other articles. They are a still greater curse in spreading plague.



Plague affects the rats first, and when as a result they begin to die in any house, its inhabitants also fall a prey to this disease

after about 2 weeks. Plague is spread by lice which suck the blood of rats. When a louse has sucked the blood of a rat infected with plague, and does not find its favourite food because the rats are dead or have fled, it bites man. The louse, while it sucks the blood, discharges its excreta which contains innumerable germs of plague. The bite of lice is painful and the hand instantly reaches to soothe the itching. The itching produces cracks in the skin and thus the plague germ in the excreta of the lice finds its way into the blood stream and thus causes plague. One should, therefore, try one's best to get rid of the dangerous rats.

Ways of Eradicating Rats

Rats usually live in burrows made in the floors, and so the floors should as far as possible be made of bricks. If one cannot, however, have all the floors of a house made

one should at least have the floor of the granary made of bricks. Grains should not be allowed to lie scattered here and there and every article of food should be kept properly covered or locked in the almirahs. There should be no opening or fissure in the door-frame and window-frames to admit the rats. The drains of the house should be covered with meshes. Cats prey on rats. Domesticating cats, therefore, will be an easy way of eradicating rats. In the absence of cats, rat-traps should be used, and the catches should be killed and burned with kerosene oil away from the populated area. They should never be let off alive, otherwise they would come back and enter others' dwellings.

: Arsenic and nux vomica or poisonous substances like these should be used in extinguishing the rats. Small pellets of these should be mixed in jaggery and flour and left in different corners of the house at night. There should be no other article of food which could be eaten by the rats. When the rats are starving, they will devour these pellets and perish. The pellets that are found in the morning should be carefully picked up because they could be a source of death to domestic fowls and pets. There is also a possibility of their being swallowed by babies.

Barium Carbonate is most effective in exterminating the rats. It should be used in the form of pellets as described above. A pleasant thing about barium carbonate is that if it is taken by domestic birds or animals it does them no harm.

Phosphorous fumes in the burrows of rats, or pouring of kerosene oil or petrol into them, kills the rats. When the rats in the burrows are dead, pieces of glass, tin, etc. should be dumped in the burrows and then they should be sealed with cement.

The rats that die outside the burrows either from eating poisonous articles or from plague should never be touched nor thrown out into the streets. They should be

from the inhabited area and burnt along with reeds and bushes by sprinkling kerosene oil.

FOOD

Our body is a big factory in which various machines remain in perpetual motion and fulfil their duty. Due to their perpetual motion some part or other of the body is used up all the time. When we move about or work then this consumption is accelerated and the body demands something to make up for the loss. This demand is nothing but "Hunger". It means that hunger is a natural instinct which makes us feel that there has resulted some deficiency in energy, heat and secretions and to make up for this loss some material has to be provided to the body. To provide this material and satisfy the feeling of hunger we take food, but this must be clearly understood that the diet taken can only be beneficial and generate heat and energy when it can replace the worn-out part of the body and when it is taken at appropriate time as directed below.

Directions for Eating Food

1. Food should be taken only when you feel quite hungry, and you should stop before the hunger is quite satisfied. By doing so, the food will be fully digested and will provide the necessary energy to the body and be fully assimilated. By doing otherwise digestion is impaired and the food taken not only becomes useless but a source of ill-health.

2. Whatever food is taken it ought to be well-cooked and fresh; taking half cooked and stale food upsets digestion. Taking stale and spoilt food makes people ill and brings on vomiting and diarrhoea. In rainy season the taking of stale foods should be strictly prohibited

3. Whatever food is taken it must look neat and clean having sweet smell and good taste. The foods, the sight of which produces a repulsion or which do not smell good and are not tasteful, should not be taken, as they are more likely to do harm than good.

4. The vessels in which food is served must also be neat and clean and it is also necessary to wash hands and mouth before taking food.

5. While taking food attention must be directed from all other things and one must feel gay and happy.

6. Food must be thoroughly chewed so that salivary secretions may mix with it. The food which is taken after chewing well is readily digested due to the thorough mincing with teeth and the addition of the salivary secretions.

7. It is better to take fresh and warm food, but it should not be so hot as to burn the hand and mouth. Taking hot food causes much thirst and to quench it one has to drink a lot of water which upsets the digestion and those who take hot food suffer from some sort of sores produced in their stomach.

8. It is not advisable to drink water before and just after taking food, but if felt necessary then a little quantity of water may be taken somewhere about half way while taking food. On an urgent need water may also be taken after taking food. To drink a lot of water at a time upsets the digestion. The requisite quantity of water for digestion is already present in the food, and some water is also supplied to the food by the saliva of the mouth.

9. If there are both sweet and saltish dishes in the meal then sweet dish should be taken first and salty the last. However, if the sweet dish is in small quantity then it may be taken after the salty dish. If jaggery is taken after meal, it assists in the digestion of the food and relieves constipation.

10. It is not wholesome to take water-melon after one has taken rice, or milk after eating meat, particularly if

good to take sour things or chew betel-nut after taking milk and rice, sattu (parched grain ground to meal) and milk.

11. In rainy season particularly when cholera and malaria are prevailing vinegar and pickles and pickled lemon, tamarind and pomegranate, mentha and onion, are very useful.

12. There should be no exertion just after taking food. In summer it is better to sleep for sometime after taking food, specially it is very necessary for villagers who work hard.

13. The evening meals should be taken at least two hours before retiring, and if one is used to take milk at night, it should be taken half an hour before going to sleep and allowance should be made for this milk while taking evening meals.

Meal-hours.—Though the appropriate time for taking food is when one feels hungry, yet if some time is fixed and certain rules are observed in this regard then one feels hungry at the appointed time. The villagers should take their breakfast at 7 O'clock in the morning and luncheon at a time between twelve and one. The evening meals should be taken just after dusk, and if one is habituated to take milk at night then it should be



taken half an hour before going to sleep.

Foods According to the Seasons

In winter the power of digestion is found to be better and there is an excess of animal heat in the inner parts of the body. Therefore, in this season jaggery, and all kinds of sweets and halwas and other fatty materials are well digested and supply energy to the body and increase the animal heat. Those who take meat can gain strength by taking meat, fish and eggs. However, in summer it is better to minimise the use of such things as much as possible. It is better to take cooling and green vegetables, fresh fruits, milk, curd and its lassi, whey and cheese in excess. These things may also be taken in rainy season except lassi and whey; if desired fresh whey may be taken. Fried green vegetables and sometimes *gulgule*, *puray*, *suhā* etc. and other such preparations may also be taken. But in this season it is very useful to take along with the food lemon juice and pickled lemon, vinegar, tamarind and pickles made from these things.

Some Important Foods:—The foods which we take daily can be divided into the following two categories.

I. Animal Foods.—These are the foods which are derived from animals, e.g., meat, fish, egg, milk, butter, purified butter, curd, cheese, and whey etc.

II. Vegetable Foods.—These are the foods which are obtained from plant kingdom (trees and plants etc.) e.g. corn, pulses, various kinds of oil, vegetables and fresh and dry fruits.

Animal Foods

Animal foods nourish our body, and are utilised for the formation of flesh, skin, veins and muscles. Besides that they provide heat and energy. Below are briefly described certain animal foods :

Meat:—Meat is a wholesome food. It strengthens the body and increases vitality. Chiefly it consists of proteins, fat

and certain mineral salts. Owing to the excess of proteins it provides nourishment to the body and generates heat and energy.

In India the flesh of various animals is used as food, but out of them that of dumba, sheep, goat, cock, partridge and quail is used in abundance.

Though the flesh of dumba and sheep is better so far as nutritive value is concerned yet it is more difficult to digest than the flesh of goat. Poultry meat is considered best as it is light and easy to digest. The flesh of whatever animal is taken must be healthy. People fall ill by taking meat of old and sick animals. The meat should be well cooked. Meat which is not fully cooked when taken upsets the digestion and brings on diarrhoea and produces tape worms and hookworms. It is not advisable to take meat alone, continuously for a long time. Some green vegetables must also be cooked along with the meat and there must be moderation in its use. Prolonged and continuous use of meat brings on rheumatism and other such ailments.

Fish.— Fish is one of the important foods. It is widely used in India and is the staple food of the people of Bengal and Bihar.

Fish also nourishes the body as do other meats and generates heat and energy. The flesh of fish is very wholesome and easy to digest. Fish must always be taken freshly cooked. Fresh fish is tough and if it is held on the palm of the hand its tail will not droop and by looking at the open gills they appear red, otherwise the fish caught and kept for a long time is spoilt and rotten smell is given off. The brightness of its eyes, redness of the gills and its toughness disappear on keeping

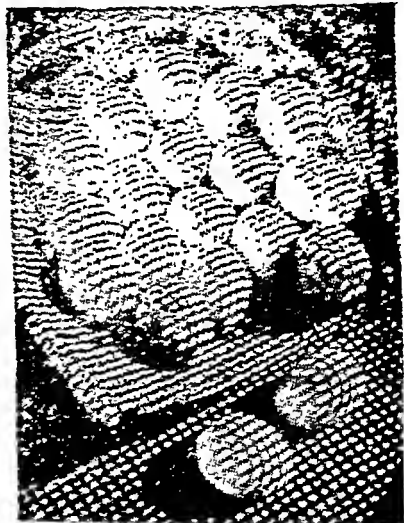


it for a long time. Vomiting and diarrhoea are caused by taking bad fish. It must also be remembered that fresh water fish is better than that of a pool or pond.

It is found by experience that it is not advisable to take milk after taking fish and vice versa as it causes leucoderma, leprosy and other such diseases.

Eggs.—Egg is a very light, nutritious and easily digestible food. It promotes blood formation. Eggs of only those fowls are taken whose flesh is used as food. But the best of all is the egg of a hen. It contains a large proportion of proteins which forms the flesh and skin of the body. It also has a fatty content which generates heat and

energy and besides that some mineral salts and water are also found in it. The most important property of the egg is that it is more nutritious compared to its quantity and the waste material left as excreta is scanty. The egg is boiled and after removing the shell it is taken wholly—the white of the egg as well as the yolk. Egg is also used as egg-curry. Some



people break the egg without any previous treatment and take both the yolk and the white of the egg. But the best and most advantageous way of its use is that the egg should be boiled till the egg-white is coagulated but the egg yolk is just near the point of coagulation and is not actually coagulated. After that some table salt and black pepper should be sprinkled on it and then taken. It is still better if only yolk is taken. Such an egg is called a half-boiled egg. To get such a kind of egg it should be boiled for about $1\frac{1}{2}$ minutes in boiling water, and if there is no watch then it should be boiled for as much time as is required to count up to hundred with normal speed. It

is the best for a baby, but other people according to their condition may feed their babies on the milk of a cow, goat or buffalo. The milk of a goat is very light and easy to digest, but it has got a peculiar odour and therefore is not generally liked. Though the milk of a cow is less easily digestible than that of a goat, yet even then it is considered better than the milk of a buffalo. The milk of a buffalo contains large proportion of the components of butter and cheese. Therefore it is richer, but is a nice food only for healthy people. Milk is a fine, nutritious food and due attention should be given to its fineness while milking and storing. The udders of the animal should be thoroughly washed before milking in a clean vessel. After milking one should wash one's hands. The milk should be boiled before use otherwise it should be used quite fresh, i. e. as soon as it is drawn from the udders.

Curd and Whey.—Curd is prepared by coagulating milk. The portion left after churning curd and taking out butter from it is called skimmed-milk. Both curd and whey are useful foods. Skimmed-milk, though deprived of the nutritive value of butter, is still a useful food. Whether it is summer or winter, villagers take it eagerly and without this their diet is incomplete. It not only supplies nourishment to the body but also protects against the harmful effects of the scorching heat of the sun and the parching wind in summer. Continuous use of milk, curd, and whey prolongs life.

The people of Bulgaria—an European country—are very healthy and sturdy and live longer. On investigation it has been found that the reason of their being healthy and sturdy and attaining a lengthy life is the continuous use of curd and whey. In our villages too certain people who get milk, curd and whey in abundance, enjoy good health and live comparatively longer. But it should be kept in mind that it is always better to use fresh curd and whey. When these become sour on keeping they are no longer wholesome.

Vegetable Foods

Corn and Pulses.—Flour is prepared by grinding wheat, barley, Bengal gram, maize and millet and the bread prepared from it is taken along with pulses and vegetables.

Wheat.—It is the best of all grains and contains the largest portion of the contents which nourish the body. It tastes good and has no injurious ingredients.

Barley.—Though barley is also very nutritive, it is inferior to wheat.

Bengal Gram.—It is also very nutritious and tasteful. It finds wide use in villages. When it grows a little after sprouting, its leaflets are plucked and



eaten raw. They are tasteful and also relieve constipation. When it bears fruit and grains are developed in them then they are roasted on fire and then taken. When the gram is fully ripe and dry, bread is prepared from its flour and it is also used as pulse. *Baisan* (flour of husked gram) prepared from gram deal is used in the preparation of various kinds of delicious foods. It means that gram is a useful grain for villagers. But it has the drawback that it produces obesity and flatulence. The villagers who work hard take it mixed with wheat as bread and derive nourishment from it.

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absorb and is sufficient to cook it well.

Pulses.—In villages the pulses of gram, peas, black-gram, green-gram, moth, cow-pea, and lentils are used very much. Nearly all pulses contain nutritive factors. For those who do not take meat these pulses take the place of meat, particularly the pulses of black-gram, gram and peas which are considered to be the best. Especially the pulse of black-gram (urd) is the best to nourish the body and supply energy. These pulses, however, produce obesity and flatulence except the green-gram pulse which is free from these drawbacks and is easily digested. Therefore, it is very wholesome for the weak and the sick.

Green Vegetables.—Pumpkin, lady's-fingers, prickly leaves, elephant's foot, turnip, beet-root, carrot, radish, parwal, brinjal, common cucumber, tomato, onion and potatoes etc. green vegetables and spinach, khirfa, mustard, goose foot and chulai, and other such leafy vegetables (saag) are grown in abundance, mostly in villages and they are used there. They contain essential dietetic principles and mineral salts. They strengthen the digestive system and relieve constipation, purify the blood and normalize the humours. Among vegetables, carrots, tomato and onion are especially very useful. The poor and hard-working villagers very often take salted bread, and whey for their breakfast.



The green vegetables should first be thoroughly cleaned with water and then sliced and cooked. Only as much water as is necessary for cooking should be added. By following this method they will be wholesome and nutritious as well. Certain vegetables are boiled in water which is removed by squeezing and thrown away. This method is not good and in this way some essential nutritive factors are lost. Some people throw away the leaves of vegetables like turnip, radish and beet-root and in this way certain nutritive factors contained in the leaves are lost. Therefore, these vegetables should be cooked along with their leaves. Carrot, onion and tomato should be considered no ordinary vegetables. By taking these vegetables we get nearly all the necessary factors required by our body, because they contain, besides appreciable quantity of sugar and calcium, the accessory nutritive factors of a diet called "Vitamins".

Jaggery and Sugar.—Jaggery and red sugar are very necessary for the hard working classes of the villages. The deficiency in energy and heat of the body caused by hard labour is made up by the use of jaggery and red sugar, particularly when it is supplemented by purified butter. But as purified butter is not always within the means of each and every person, much benefit will accrue by taking jaggery along with milk and whey. Though the villagers are habituated to the use of jaggery, in summer and rainy seasons its use must be curtailed. The jaggery not only supplies energy and heat to the body but also relieves constipation.

Pickles, Sauce and Vinegar

In the hot rainy season the humid atmosphere upsets the digestion and epidemics like cholera and malaria prevail. Therefore, in this season the use of pickle and sauce and vinegar is of much benefit. Some poor villagers are content with bread taken along with mango-pickle, sauce or vinegar only.

Some people are accustomed to their use in every season of the year, but their excessive use is never advisable. The main disadvantage of excessive use of these sour materials is that there is an increase in the secretion of digestive juices in the stomach which weakens it gradually until stomach becomes incapable of digesting the food without these sour things. Anyway, sour things should not be taken in excess, and after their use some sweet thing like jaggery etc. must be eaten to minimize their harmful effects.

Wares Used in Cooking and Serving the Food

It is of paramount importance that the wares used for cooking and serving the food, irrespective of the metal they are made of, must be neat and clean. Utensils of copper or brass should be tinned. The poison of the metal of the utensils finds its way into the foods cooked or kept in untinned wares. The taste of curd in copper or brass wares is rendered acid. The reason of the acidity is the contamination with the poison. The greenness produced on keeping the curd, whey or other sour things is nothing but poison. Therefore, they must never be used for cooking or keeping a sour thing without being tinned. One must abstain from using them for cooking or keeping other things also. The poor villagers make extensive use of the wares made of aluminium owing to their cheapness. But it is injurious for health to take food, especially the sour ones, and vegetables cooked in them. Aluminium wares may be used for heating water or milk. They may also be used for cooking sweet foods, but after cooking them they must be transferred to other utensils. In short, some sort of precaution must be observed in their use.

Poor people can make use of earthen wares instead of vessels made of aluminium, but it is essential to keep them neat and clean. The earthen ware must be thoroughly washed after use and dried in the sun.

Fruits

Fruits are very useful to furnish nourishment and energy to the body. The body derives necessary sugars from these fruits which generate heat and energy in the system. The



fruits are rich in sour materials which assist the digestion of food and help the intestines in ridding of the waste material, purify the blood and keep the humour normal. These fruits also contain the dietetic factors called "Vitamins" which are essential for the

growth and vitality of the human body. In villages mango, melons, papaya, plums, banana, common cucumber, guava, lemon, prunes, plum, fig etc. are grown in abundance.

Mango.—It is a very nice and wholesome fruit. It nourishes the body, generates heat and relieves constipation.

Melon.—It is also one of the best fruits. It relieves constipation and regulates the function of kidneys. It is very useful, especially for those who suffer from calculi in their kidneys, bladder or urinary tract.

Watermelon.—It is also a good fruit. It is refreshing and cooling, relieves thirst and increases urination. But it somewhat produces flatulence and is not suitable for those with

cold temperament. Watermelon should not be taken after rice.

Banana.—Banana is a nice fruit because it nourishes the body and supplies energy necessary to the human system. It contains nearly all the constituents necessary for the growth and maintenance of the human body. It is very useful for children. As it also produces flatulence to some extent, it should be taken along with a little quantity of powdered black pepper and table salt.

Papaya.—It sharpens the appetite, aids digestion and relieves constipation and at the same time furnishes the necessary dietetic constituents to the body.

Common Cucumber.—It is especially useful for people with hot temperament. It purifies the kidneys and the urinary bladder by increasing the urination. Sometimes it produces stomachache when taken in excess, and therefore it should be taken along with powdered black pepper and table salt.

Phut and Saindha.—They also nourish the body, but are very nutritive. They increase urination and cause flatulence and it is advisable to take them with powdered black-pepper and table salt. Besides they should not be taken in excess as they produce colic pain and bring on fever if taken regularly.

Guava.—It nourishes the body and relieves constipation, but it produces stomachache when taken in excess and make one susceptible to get fever. Therefore, it should be taken with black-pepper and salt after meals.

Lemon.—Its juice is a good digestive and appetizer. If taken with meals it adds to the relish of food and makes it more wholesome. It is very useful particularly in summer and rainy seasons, and during epidemics such as malaria and cholera.

Fig.—Besides nourishing the body it relieves constipation.

Common Plum.—It specially is very useful for people of hot temperament and removes the biliousness.

Peaches.—This is also suitable for persons having hot temperament, but its excessive use affects the intestines. Therefore it must be taken with black-pepper and salt.

Anyhow, all the fruits, collectively, nourish the body, relieve constipation, normalize the humours, supply the growth factors to the body and strengthen it. But while taking fruits the following points must be borne in mind.

(i) The fruits must be fully ripe as it is more harmful than good to take unripe and spoilt fruits.

(ii) The appropriate time to take fruits is after meals in the afternoon but never on empty stomach.

(iii) To drink water just after taking fruits brings on cold and catarrh. Therefore, one should avoid doing such thing.

(iv) By taking the common cucumber, black plum, guava and peaches etc. along with powdered black-pepper and table-salt their harmful effects are counteracted.

Sugarcane.—It is a speciality of villages. Jaggery, sugar and other sweets are prepared from its juice. People chew it after skinning it or drink its juice, which increases the flow of urine and washes the kidneys and bladder, with the result that there is no stone or calculi formation in them, and if there is some sort of inflammation in the urethra it is also relieved.



salts as a result of which he finds himself susceptible to different diseases, specially scurvy in which a patient's blood becomes impure, the gums swell, become loose and bleed, and the heart is weakened.

Water

Water is also very essential for our health and life. Its importance is next to air. Two-thirds of the weight of our body is made up of water. Water helps in the digestion of food. It carries the above described food constituents to the minutest capillaries, but as it does not have any nutritive value it is not numbered among the health- and energy-producing ingredients.

PERCENTAGE OF FOOD VALUES

The Chart below describes the percentage of the constituents of food in cereals, pulses, vegetables etc. For instance, the percentage of Proteins in wheat, has been shown as 11.8 which means that in 100 tolas of wheat there are 11.8 tolas of Proteins.

| Name. | Proteins % | Carbohydrates % | Fats % | S A L T S | | | |
|--|------------|-----------------|--------|-----------|--------|---------------|---------|
| | | | | Calcium % | Iron % | Phosphorous % | Water % |
| Wheat .. | 11.8 | 71.2 | 1.5 | 0.05 | 5.3 | 0.32 | 12.8 |
| Bajra or Cambu .. | 11.6 | 67.1 | 5.0 | 0.05 | 8.8 | 0.35 | 12.4 |
| Barley .. | 11.5 | 69.3 | 1.3 | 0.03 | 3.7 | 0.23 | 12.5 |
| Cholam .. | 10.4 | 74.0 | 1.9 | 0.03 | 6.2 | 0.28 | 11.9 |
| Italian millet (Kangni) .. | 12.3 | 60.6 | 4.7 | 0.03 | 6.3 | 0.29 | 11.2 |
| Maize, tender .. | 4.3 | 15.1 | 0.5 | 0.01 | 0.7 | 0.10 | 79.4 |
| Maize, dry .. | 11.1 | 66.2 | 3.6 | 0.01 | 2.1 | 0.33 | 11.9 |
| Makhana .. | 9.7 | 76.9 | 0.1 | 0.02 | 1.4 | 0.09 | 12.8 |
| Oatmeal .. | 13.6 | 62.9 | 7.6 | 0.05 | 3.8 | 0.58 | 10.7 |
| Rice, raw, home-pounded (Arwa Chawal) .. | 8.5 | 78.0 | 0.6 | 0.01 | 2.8 | 0.17 | 12.2 |
| Rice, parboiled, home-pounded (Osna Chawal) .. | 8.5 | 77.4 | 0.6 | 0.01 | 2.8 | 0.28 | 12.6 |
| Rice, white, puttu (Chawal Safed) .. | 7.5 | 78.7 | 0.4 | 0.01 | 3.3 | 0.68 | 13.0 |
| Rice, flakes (Chola) .. | 6.6 | 78.2 | 1.2 | 0.02 | 8.6 | 0.22 | 12.2 |
| Sago (Metroxylon Sago) .. | 0.2 | 87.7 | 0.2 | 0.08 | 1.7 | 0.01 | 12.2 |
| Singhara, dry (Trapa bispinosa) .. | 4.7 | 23.9 | 0.3 | | | | |

| Name | Proteins %. | Carbohydrates %. | Fats %. | S A L T S | | | | Water %. |
|---|-------------|------------------|---------|------------|---------|----------------|------|----------|
| | | | | Calcium %. | Iron %. | Phosphorous %. | | |
| P U L S E S . | | | | | | | | |
| Bengal gram (with outer husk) (Chane ki dal) .. | 17.1 | 61.2 | 2.7 | 0.19 | 9.8 | 0.24 | 9.8 | |
| Black gram (without outer husk). (Urd). .. | 24.0 | 60.3 | 3.4 | 0.20 | 9.8 | 0.37 | 10.9 | |
| Rawan (Lobia) .. | 23.4 | 59.7 | 2.9 | 0.08 | 4.3 | 0.43 | 12.7 | |
| Field bean, dry. (Moong) .. | 24.9 | 60.1 | 3.2 | 0.06 | 2.0 | 0.45 | 9.6 | |
| Green gram (with outer husk) (Kolthi) .. | 24.0 | 56.6 | 3.6 | 0.14 | 8.4 | 0.28 | 10.4 | |
| Lentil (Masur dal) .. | 25.1 | 59.7 | 2.1 | 0.13 | 2.0 | 0.25 | 12.4 | |
| Peas, dried (Mattar) .. | 19.7 | 56.6 | 2.1 | 0.07 | 4.4 | 0.30 | 16.0 | |
| Red Gram (Arhar) .. | 22.3 | 57.2 | 3.6 | 0.14 | 8.8 | 0.26 | 15.2 | |
| Soya Bean .. | 43.2 | 20.9 | 4.6 | 0.24 | 11.5 | 0.69 | 8.1 | |

TUBERS.

| | | | | | | | | |
|-------------------------|-----|------|-----|------|-----|------|--|------|
| Turnip .. | 0.5 | 7.6 | 0.2 | 0.03 | 0.4 | 0.04 | | 91.1 |
| Beet-root .. | 1.7 | 13.6 | 0.1 | 0.20 | 1.0 | 0.06 | | 83.8 |
| .. | 0.9 | 10.7 | 0.2 | 0.08 | 1.5 | 0.53 | | 86.0 |
| .. (Arvi) | 3.0 | 22.1 | 0.1 | 0.04 | 2.1 | 0.14 | | 73.1 |
| .. | 1.2 | 11.6 | 0.1 | 0.18 | 0.7 | 0.5 | | 86.8 |
| .. | 1.6 | 22.9 | 0.1 | 0.01 | 0.7 | 0.03 | | 74.7 |
| Radish (white) .. | 0.7 | 4.2 | 0.1 | 0.05 | 0.4 | 0.03 | | 94.4 |
| Sweet potato .. | 1.2 | 31.0 | 0.3 | 0.02 | 0.8 | 0.05 | | 68.5 |
| Tapioca (Aloo Simla) .. | 0.7 | 38.7 | 0.2 | 0.05 | 0.9 | 0.04 | | 59.4 |
| Yam (elephant) .. | 1.2 | 18.4 | 0.1 | 0.05 | 0.6 | 0.02 | | 78.7 |
| Yam (ordinary) .. | 1.4 | 27.0 | 0.1 | 0.06 | 1.3 | 0.02 | | 69.9 |

GREEN VEGETABLES.

| | | | | | | | | |
|-----------------------|-----|------|-----|------|-----|------|--|------|
| Ash-ground (Petha) .. | 0.4 | 3.2 | 0.1 | 0.03 | 0.5 | 0.02 | | 96.0 |
| Bitter-gourd .. | 1.6 | 4.2 | 0.2 | 0.02 | 2.2 | 0.07 | | 92.4 |
| Brinjal .. | 1.3 | 6.4 | 0.3 | 0.02 | 1.3 | 0.06 | | 91.5 |
| Broad-Beans .. | 4.5 | 10.0 | 0.1 | 0.05 | 1.6 | 0.06 | | 82.4 |
| Calabash Cucumber .. | 0.2 | 2.9 | 0.1 | 0.02 | 0.7 | 0.01 | | 96.3 |

| Name | Proteins % | Carbohydrates % | Fats % | S A L T S | | | | Water % |
|------|------------|-----------------|--------|-----------|--------|---------------|--|---------|
| | | | | Calcium % | Iron % | Phosphorous % | | |

GREEN VEGETABLES.—Contd.

| | | | | | | | | |
|-----------------------------|-----|------|------|------|------|------|------|------|
| Cauliflower .. | .. | 3.5 | 5.3 | 0.4 | 0.03 | 1.3 | 0.06 | 89.4 |
| Cluster bean .. | .. | 3.7 | 9.9 | 0.2 | 0.13 | 5.8 | 0.13 | 82.5 |
| Cucumber .. | .. | 0.4 | 2.8 | 0.1 | 0.01 | 1.5 | 0.03 | 96.4 |
| French beans .. | .. | 1.7 | 4.5 | 0.1 | 0.05 | 1.7 | 0.03 | 91.4 |
| Nellikai (Amla) .. | .. | 0.5 | 14.1 | 0.1 | 0.05 | 1.2 | 0.02 | 81.2 |
| Jack, tender .. | .. | 2.6 | 9.4 | 0.3 | 0.03 | 1.7 | 0.04 | 84.0 |
| Jack-fruit seeds .. | .. | 6.6 | 38.4 | 0.4 | 0.05 | 1.2 | 0.13 | 51.6 |
| Lady's fingers .. | .. | 2.2 | 7.7 | 0.2 | 0.09 | 1.5 | 0.03 | 88.0 |
| Leeks .. | .. | 1.8 | 17.2 | 0.1 | 0.05 | 2.3 | 0.07 | 78.9 |
| Mango, green .. | .. | 0.7 | 8.8 | 0.1 | 0.01 | 4.5 | 0.02 | 90.0 |
| Onion stalks .. | .. | 0.9 | 8.9 | 0.2 | 0.05 | 7.5 | 0.05 | 87.6 |
| Peas, English .. | .. | 7.2 | 19.8 | 0.1 | 0.02 | 1.5 | 0.03 | 72.1 |
| Plantain, green .. | .. | 1.4 | 14.7 | 0.2 | 0.01 | 0.6 | 0.03 | 83.2 |
| Ridge-gourd .. | .. | 0.5 | 3.7 | 0.1 | 0.04 | 1.6 | 0.04 | 95.4 |
| Tomato, green .. | .. | 1.9 | 4.5 | 0.1 | 0.02 | 2.4 | 0.04 | 92.8 |
| Singhara or water chestnut. | 4.7 | 23.9 | 0.3 | 0.02 | 0.8 | 0.15 | | 70.0 |

LEAFY VEGETABLES.

| | | | | | | | | |
|-----------------------|----|-----|------|-----|------|------|------|------|
| Amaranth, tender .. | .. | 4.9 | 5.7 | 0.5 | 0.50 | 21.4 | 0.10 | 85.8 |
| Amaranth, spined .. | .. | 3.0 | 8.1 | 0.3 | 0.80 | 22.9 | 0.05 | 85.0 |
| Bathua leaves .. | .. | 4.7 | 3.7 | 0.4 | 0.15 | 4.2 | 0.08 | 87.9 |
| Cabbage .. | .. | 1.8 | 6.3 | 0.1 | 0.03 | 0.8 | 0.05 | 90.2 |
| Carrot leaves .. | .. | 5.1 | 8.3 | 0.5 | 0.34 | 8.8 | 0.11 | 83.2 |
| Celery .. | .. | 6.0 | 8.6 | 0.6 | 0.23 | 6.3 | 0.14 | 81.2 |
| Coriander, green .. | .. | 3.3 | 6.5 | 0.6 | 0.14 | 10.0 | 0.06 | 87.6 |
| Fenugreek .. | .. | 4.9 | 9.8 | 0.9 | 0.47 | 16.0 | 0.05 | 81.2 |
| Bengal gram-leaves .. | .. | 7.0 | 11.7 | 1.4 | 0.34 | 23.2 | 0.32 | 77.2 |
| Mint .. | .. | 4.8 | 8.0 | 0.6 | 0.20 | 15.7 | 0.08 | 83.0 |
| Spinach .. | .. | 1.2 | 4.0 | 0.3 | 0.06 | 5.6 | 0.03 | 91.7 |
| Soya leaves .. | .. | 6.0 | 16.2 | 0.5 | 0.12 | 2.6 | 0.14 | 73.5 |

| Name | Proteins %. | Carbohydrates %. | Fats %. | S A L T S | | | | Water %. |
|-----------------------------------|-------------|------------------|---------|------------|---------|----------------|------|----------|
| | | | | Calcium %. | Iron %. | Phosphorous %. | | |
| FRESH FRUITS. | | | | | | | | |
| Apple .. | 0.3 | 13.4 | 0.1 | 0.01 | 1.7 | 0.02 | 85.9 | |
| Banana .. | 1.3 | 36.4 | 0.2 | 0.01 | 0.4 | 0.05 | 61.4 | |
| Cape goose-berry .. | 1.8 | 11.5 | 0.2 | 0.01 | 1.8 | 0.06 | 82.7 | |
| Bilimbi .. | 0.5 | 4.8 | 0.2 | 0.01 | 0.6 | 0.01 | 93.3 | |
| Dates .. | 3.0 | 67.3 | 0.2 | 0.03 | 10.6 | 0.08 | 26.1 | |
| Figs .. | 1.3 | 17.1 | 0.2 | 0.06 | 1.2 | 0.03 | 80.8 | |
| Grapes (Blue Variety) .. | 0.8 | 10.2 | 0.1 | 0.03 | 0.4 | 0.02 | 85.5 | |
| Grape fruit (Triumph) .. | 0.7 | 7.1 | 0.1 | 0.02 | 0.2 | 0.02 | 92.0 | |
| Grape fruit (Marsh's Seedless) .. | 1.0 | 10.0 | 0.1 | 0.03 | 0.2 | 0.03 | 88.5 | |
| Guava, country.. | 1.5 | 14.5 | 0.2 | 0.01 | 1.0 | 0.04 | 76.1 | |
| Jack-fruit .. | 1.9 | 18.9 | 0.1 | 0.02 | 0.5 | 0.03 | 77.2 | |
| Jambu-fruit .. | 0.7 | 19.7 | 0.1 | 0.02 | 1.0 | 0.01 | 78.2 | |
| Lemon .. | 1.0 | 11.1 | 0.9 | 0.07 | 2.3 | 0.01 | 85.0 | |
| Lime .. | 1.5 | 10.9 | 1.0 | 0.09 | 0.3 | 0.02 | 84.6 | |
| Loquat .. | 0.7 | 10.2 | 0.3 | 0.03 | 0.7 | 0.02 | 87.4 | |
| Mango, green .. | 0.7 | 8.8 | 0.1 | 0.01 | 4.5 | 0.02 | 90.0 | |
| Mango, ripe .. | 0.6 | 11.8 | 0.1 | 0.01 | 0.3 | 0.02 | 86.1 | |
| Mango "Ankola" .. | 1.0 | 12.5 | 0.1 | 0.01 | 0.5 | 0.02 | 85.9 | |
| Mango-steen .. | 0.5 | 14.3 | 0.1 | 0.01 | 0.2 | 0.02 | 84.9 | |
| Melon, water .. | 0.1 | 3.8 | 0.2 | 0.01 | 0.2 | 0.01 | 85.7 | |
| Orange .. | 0.9 | 10.6 | 0.3 | 0.05 | 0.1 | 0.02 | 87.8 | |
| Palmyra fruit, tender .. | 0.6 | 6.5 | 0.1 | 0.01 | 0.5 | 0.02 | 92.7 | |
| Papaya, ripe .. | 0.5 | 9.5 | 0.1 | 0.01 | 0.4 | 0.01 | 89.6 | |
| Peaches .. | 1.5 | 7.6 | 0.2 | 0.01 | 1.7 | 0.03 | 90.1 | |
| Pears, country .. | 0.2 | 11.5 | 0.1 | 0.01 | 0.7 | 0.01 | 86.9 | |
| Pears, English .. | 0.9 | 12.9 | 0.2 | 0.01 | 0.8 | 0.02 | 85.8 | |
| Pineapple .. | 0.6 | 12.0 | 0.1 | 0.02 | 0.9 | 0.01 | 86.5 | |
| Plantain, (red variety) .. | 1.6 | 23.4 | 0.1 | 0.01 | 0.6 | 0.02 | 74.1 | |
| Plantain, (hill) .. | 1.2 | 18.0 | 0.1 | 0.01 | 0.3 | 0.03 | 79.9 | |
| Pomegranate .. | 1.6 | 14.6 | 0.1 | 0.01 | 0.3 | 0.07 | 78.0 | |

VITAMINS

Vitamins were discovered only recently. Countless experiments have proved that if a person is fed on synthetic food which contains the food-components described earlier like proteins, carbohydrates etc., he cannot remain fit and healthy. When, however, the synthetic food is given along with natural food like milk, the health is unimpaired. The result of these experiments is that the natural food articles that we take daily contain, apart from the four ingredients described above, other fine elements which are essential to maintain the health. These elements, which are found in the food articles in their natural form, are called Vitamins.

Several forms of Vitamins have been discovered so far, and it has been demonstrated that they have different properties and uses. These Vitamins are called A, B, C etc.

Vitamin A.—Vitamin A is essential for the growth of children. A child who lacks Vitamin A ceases to develop and becomes a victim of rickets—a disease characterized by the softening and crookedness of the bones.

Young persons who do not take Vitamin A for some time suffer no set-back. But if no Vitamin A is to be had for a long time, adverse effects appear and one is threatened with diseases like night-blindness, blepharitis, loss of appetite, indigestion, weakness of the lungs, weeping-ears etc. Also, owing to the lack of Vitamin A wounds take a long time to heal.

Sources of Vitamin A.—It is found in fats in a large percentage. Cod Liver Oil contains a very large proportion of Vitamin A. Vitamin A is also found in milk, butter, cream, yolk, cheese, green vegetables like carrots, radishes, tomatoes, pine-apple, bananas and in some ki

Vitamin A is however absent in vegetable oils like mustard-oil, til-oil, groundnut-oil, etc. Mangoes contain substantial quantity of this Vitamin, and bananas very little.

Vitamin B.—This Vitamin is also necessary for the maintenance of health. Children deprived of Vitamin B do not show physical development. If Vitamin B is denied to a grown-up person for a prolonged period a peculiar disease called beri-beri appears. Lack of Vitamin B also causes loss of weight, general weakness, disturbance in the nourishment of the skin, weakness of the muscles. A chief feature of Vitamin B is that it is soluble in water and perishes at high temperatures.

Sources of Vitamin B.—Vitamin B is usually found in cereals. It is also present in a large quantity in rice, though not in polished rice, that is rice whose outer-skin has worn off during the cleaning process. Eggs, green vegetables, meat, milk, and the husk of wheat, maize etc. also have Vitamin B. Fish, animal fats, and the tinned-foods imported from Europe lack Vitamin B.

Vitamin C —The absence of Vitamin C for a long time in one's diet makes one afflicted with scurvy which makes the blood impure, causes haemorrhage in the dermis, muscles and internal organs, makes the gums swollen and hollow which ooze out blood and pus, and weakness of the heart. These diseases are noticeable specially in those who generally eat imported tinned-foods which are devoid of Vitamin C. Children fed on canned-milk who have no access to fresh fruits and milk are afflicted with scurvy.

Vitamin C is lost if the thing which contains it is cooked on fire.

Sources of Vitamin C —Vitamin C is mostly found in fresh and leafy vegetables, for example, cabbages, cauliflower, lettuce, radishes, tomatoes and turnips. To some extent it is found in potatoes, carrots, and beetroot also. Cereals, milk

and flesh of some animals also have Vitamin C. Mangoes, oranges, lemons, and maltas contain a large amount of Vitamin C. Experiments have shown that it is present in the essence of citrus fruits also.

Vitamin C is to be found in a very small amount in milk, and on boiling the milk it disappears.

Vitamin D.—Vitamin D is like Vitamin A. It helps the growth of children. Its absence causes rickets in which the bones are softened and the growth of a child is hindered. Similar complaints arise in pregnant women also as a result of the absence of Vitamin D and the bones of the abdomen become soft.

Sources of Vitamin D.—Vitamin D is found in a large quantity in natural foods. Milk, ghee, butter, and eggs all have Vitamin D. Cod Liver Oil is its best source. In a small amount Vitamin D is found in vegetable oils also.

Vitamin E.—A man or woman who lacks Vitamin E in the diet finds the power of procreation diminished and is without children. As a result of the absence of Vitamin E, no pregnancy takes place, and even if it does, there are miscarriages. Women who are prone to miscarry, if given Vitamin E regularly, are able to bear children.

Sources of Vitamin E.—Vitamin E is generally found in the husks of seeds and cereals, specially in the husks of wheat. Butter, yolk, liver, olive oil, cottonseed-kernel and gram-pulse contain Vitamin E. There is no Vitamin E in milk.

AMOUNTS OF VITAMINS IN ANIMALS AND VEGETABLE SUBSTANCES

The symbol + given in the chart below indicates that the amount of Vitamin is small. Similarly,

++ = Good amount.

+++ = Large amount.

N = Nil.

VL = Very little.

.. = Vitamin not so far discovered.

| Animal & Vegetable Foods. | V I T A M I N S | | | | |
|------------------------------|-----------------|-----|----|-----|----|
| | A | B | C | D | E |
| Human milk | + to ++ | + | + | .. | .. |
| Cow's milk | +++ | ++ | + | + | + |
| Cream | +++ | ++ | .. | .. | .. |
| Cheese | ++ | VL | .. | .. | .. |
| Whey | + | + | + | .. | .. |
| Skimmed milk | + | + | + | .. | .. |
| Condensed | ++ | + | + | .. | .. |
| Goat's milk | +++ | + | + | + | .. |
| Buffalo's milk | +++ | + | + | + | .. |
| Butter | N | + | VL | N | .. |
| Liver | +++ | +++ | + | + | .. |
| Egg yolk | .. | ++ | .. | .. | .. |
| Kidneys | ++ | ++ | .. | .. | .. |
| Egg yolk | ++ | +++ | .. | ++ | ++ |
| Fish (Rohu) | ++ | .. | .. | ++ | .. |
| Fish | .. | ++ | .. | .. | .. |
| Fat fish | +++ | + | .. | .. | .. |
| Cod Liver Oil | +++ | VL | .. | +++ | .. |
| Milk and Butter | +++ | .. | .. | + | ++ |
| Vegetable ghee | N to + | N | N | .. | .. |
| Cocoonut oil | + | N | N | VL | .. |

Animal & Vegetable
Foods.

V I T A M I N S

A B C D E

| Animal & Vegetable Foods. | A | B | C | D | E |
|---------------------------|---------|-----|---------|----|-----|
| Til oil | VL | N | N | N | .. |
| Linseed oil | VL | N | N | N | .. |
| Groundnut oil | VL | N | N | VL | .. |
| Cottonseed oil | VL | N | N | .. | .. |
| Crystallized sugar | N | N | N | .. | .. |
| Red sugar | N | N | N | .. | .. |
| Jaggery | N | VL | N | .. | .. |
| Honey | VL | VL | N | .. | .. |
| Sugar-cane | .. | + | + | .. | .. |
| Wheat flour | + | ++ | + | .. | .. |
| Rice | VL | + | N | .. | .. |
| Parboiled rice | N | VL | N | .. | .. |
| Roggen | + to ++ | ++ | N | .. | .. |
| Millet | + | ++ | N | .. | .. |
| Maize (Indian corn) | + | ++ | N | .. | .. |
| Maize (Yellow) | ++ | ++ | N | .. | +++ |
| Soojee | + | +++ | N | .. | .. |
| Broad Beans | + | +++ | +++ | .. | .. |
| Pulses | + | ++ | N | .. | .. |
| Gram | + | ++ | N | .. | .. |
| Almond (Kernel) | VL | ++ | N | .. | .. |
| Cocoanut (, ,) | + | ++ | N | .. | .. |
| Groundnut | VL | ++ | N | .. | .. |
| Walnut (Kernel) | VL | +++ | N | .. | .. |
| Potatoes | VL | + | + to ++ | .. | .. |
| Beetroot | VL | + | + | .. | .. |
| Onion | VL | ++ | ++ | .. | .. |
| Carrots | + to ++ | ++ | + to ++ | .. | .. |
| Radish | VL | + | + | .. | .. |
| Turnip | VL | ++ | + | .. | .. |
| Cabbage | +++ | ++ | +++ | .. | .. |
| Lettuce | ++ | +++ | ++ | .. | .. |
| Spinach | +++ | +++ | ++ | .. | .. |
| Cauliflower | + | + | + | .. | .. |
| Tomato | ++ | +++ | +++ | .. | .. |
| Pumpkin | .. | + | + | .. | .. |

| Animal & Vegetable Foods. | V I T A M I N S | | | | |
|------------------------------|-----------------|----|-----|----|----|
| | A | B | C | D | E |
| Brinjal | .. | + | + | .. | .. |
| Lady's finger | .. | + | + | .. | .. |
| Kohlarbi | VL | + | + | .. | .. |
| Artichoke | .. | + | + | .. | .. |
| Apple | .. | + | + | .. | .. |
| Banana | + to ++ | + | ++ | VL | ++ |
| Grapes | + | + | +++ | .. | .. |
| Lemon | .. | + | +++ | .. | .. |
| Orange | + | + | +++ | .. | .. |
| Pears | .. | + | + | .. | .. |
| Pomegranate | .. | + | + | .. | .. |
| Peaches | .. | + | + | .. | .. |
| Pincapple | .. | .. | + | .. | .. |
| Watermelon | .. | .. | + | .. | .. |
| Papaya | + | + | ++ | .. | .. |
| Lichi | .. | + | ++ | .. | .. |
| Mango | + | .. | ++ | .. | .. |
| Guava | .. | + | + | .. | .. |
| Apricots | .. | .. | N | .. | .. |
| Raisins | .. | N | N | .. | .. |
| Dates | .. | + | N | .. | .. |
| Figs | .. | + | N | .. | .. |
| Plum | .. | + | N | .. | .. |
| Dried grapes | .. | + | N | .. | .. |
| Cashewnut | ++ | ++ | .. | .. | .. |
| Pistachio | ++ | .. | .. | .. | .. |

TIME TAKEN BY DIFFERENT FOOD ITEMS FOR DIGESTION AND ASSIMILATION

The following chart shows at a glance the time required by different food articles for digestion and assimilation. It is easy to find out from this chart what foods are digested in a short time and which ones take a long time.

| Name of food. | Time required for digestion. | |
|------------------------|------------------------------|---------|
| | Hours | Minutes |
| Fresh wheat-bread .. | 3 | 30 |
| Maize-bread .. | 3 | 15 |
| Corn-bread .. | 3 | 15 |
| Millet-bread .. | 3 | 15 |
| Toasts .. | 3 | 00 |
| Fine Wheat-flour-bread | | |
| fried in fat .. | 4 | 30 |
| Boiled rice .. | 2 | 00 |
| Pilau .. | 3 | 00 |
| Sago .. | 1 | 45 |
| Arrowroot .. | 1 | 45 |
| Boiled milk .. | 2 | 00 |
| Unboiled milk .. | 2 | 15 |
| Butter .. | 3 | 00 |
| Ghee .. | 3 | 30 |
| Cheese .. | 4 | 00 |
| Whipped-eggs .. | 1 | 30 |
| Half-boiled eggs .. | 2 | 00 |
| Boiled eggs .. | 3 | 00 |
| Fried eggs .. | 3 | 20 |

| Animal & Vegetable Foods. | V I T A M I N S | | | | |
|------------------------------|-----------------|----|-----|----|----|
| | A | B | C | D | E |
| Brinjal | .. | + | + | .. | .. |
| Lady's finger | .. | + | + | .. | .. |
| Kohlarbi | VL | + | + | .. | .. |
| Artichoke | .. | + | + | .. | .. |
| Apple | .. | + | + | .. | .. |
| Banana | + to ++ | + | ++ | VL | ++ |
| Grapes | + | + | +++ | .. | .. |
| Lemon | .. | + | +++ | .. | .. |
| Orange | + | + | +++ | .. | .. |
| Pears | .. | + | + | .. | .. |
| Pomegranate | .. | + | + | .. | .. |
| Peaches | .. | + | + | .. | .. |
| Pineapple | .. | .. | + | .. | .. |
| Watermelon | .. | .. | + | .. | .. |
| Papaya | + | + | ++ | .. | .. |
| Lichi | .. | + | ++ | .. | .. |
| Mango | + | .. | ++ | .. | .. |
| Guava | .. | + | + | .. | .. |
| Apricots | .. | .. | N | .. | .. |
| Raisins | .. | N | N | .. | .. |
| Dates | .. | + | N | .. | .. |
| Figs | .. | + | N | .. | .. |
| Plum | .. | + | N | .. | .. |
| Dried grapes | .. | + | N | .. | .. |
| Cashewnut | ++ | ++ | .. | .. | .. |
| Pistachio | ++ | .. | .. | .. | .. |

TIME TAKEN BY DIFFERENT FOOD ITEMS FOR DIGESTION AND ASSIMILATION

The following chart shows at a glance the time required by different food articles for digestion and assimilation. It is easy to find out from this chart what foods are digested in a short time and which ones take a long time.

| Name of food. | Time required for digestion. | |
|------------------------|------------------------------|---------|
| | Hours | Minutes |
| Fresh wheat-bread .. | 3 | 30 |
| Maize-bread .. | 3 | 15 |
| Corn-bread .. | 3 | 15 |
| Millet-bread .. | 3 | 15 |
| Toasts .. | 3 | 00 |
| Fine Wheat-flour-bread | | |
| fried in fat .. | 4 | 30 |
| Boiled rice .. | 2 | 00 |
| Pilau .. | 3 | 00 |
| Sago .. | 1 | 45 |
| Arrowroot .. | 1 | 45 |
| Boiled milk .. | 2 | 00 |
| Unboiled milk .. | 2 | 15 |
| Butter .. | 3 | 00 |
| Ghee .. | 3 | 30 |
| Cheese .. | 4 | 00 |
| Whipped-eggs .. | 1 | 30 |
| Half-boiled eggs .. | 2 | 00 |
| Boiled eggs .. | 3 | 00 |
| Fried eggs .. | 3 | 30 |

They impart to the food a spicy flavour and agreeable aroma and also help in digestion. The excessive use of spicy materials like pepper proves harmful and some sort of sores are formed in the stomach and inflammation is produced in the intestines. Therefore, one should avoid their excessive use.

In villages generally simple foods are taken which is good practice. But there is no harm in adding some spicy material to make them tasteful. The use of garlic and onion renders the food tasty and at the same time the harmful effects of certain foods are neutralized and the body also gets the necessary dietary factors.

Common Salt

Common Salt is an essential constituent of our diet and without this our foods taste insipid. The salt not only makes the foods tasteful but also assists in their digestion and assimilation and increases the appetite. But it is always advisable to avoid its excessive use because the vegetables which we take as food already contain an appreciable amount of the natural salt.

INTOXICANTS

Wine, opium and cannabis etc. are intoxicants. Though coffee and tobacco are not intoxicants, yet as people become addicted to their use by a feeling of temporary relief, they are considered to be intoxicating.

Wine.—It ruins the happy life of the family and those who become addicted to its use become paupers after losing their money and belongings as well as their health.

Thank God the villagers are not generally habituated to its use. Those who are addicted to it should give up it as soon as possible. The excessive and regular use of

produces a deleterious effect on the brain and muscles. That is why drunkards are afflicted with nervous diseases like paralysis, epilepsy, madness and melancholia etc. It also weakens the heart and causes heart-troubles such as palpitation etc. very often resulting in heart failure. The excessive use of wine damages the stomach and liver also and a drunkard suffers from such ailments as constipation, diarrhoea, oedema of the liver and dropsy etc. Besides that their children are generally weak and suffer from diseases of the chest and brain.

Drunkards feel temporarily better and happy and energetic but as soon as its effect is worn off one feels gloomy and sad. After the disappearance of the effect of wine the body heat is also reduced and one becomes incapable of withstanding cold. Therefore, in such a case it is useless to drink wine to keep off cold and induce others to do likewise. Some people say that it does no harm but that it is good to take a little wine. But it must be clearly understood that as soon as one starts drinking one becomes an addict to its use and then it is quite difficult

to give it up. Therefore, it is safe not to touch it and probably for this very reason all the religions of the world forbid its use, and the government is also launching a campaign to ban it.

Toddy of Palmyra Palm.—

It is also an intoxicating juice and people take it as they take wine. It is very popular in eastern and southern India. Its injurious effects are the same as mentioned

under wine, but it is useful when taken fresh as it cures general weakness by making the body fat and bulky. It



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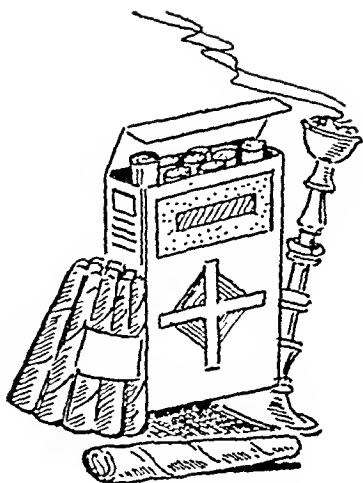
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under wine, but it is useful when taken fresh as it cures general weakness by making the body fat and bulky. It



tobacco for the first time, one feels a sense of giddiness, palpitation and vomiting. These are the signs and symptoms which prove the poisonous nature of tobacco. Prolonged use of tobacco victimizes the smoker to such ailments as weakness of heart and eyesight. Besides, its use shortens life and retards the growth of children.

There are various methods of using tabacoo in common practice: some chew it along



with betel leaf, some smoke biri and cigarettes while others use it as snuff. All these methods of the use of tobacco are more injurious for health as compared to its use as *hookah*. Because by smoking *hookah* most of the poison of the tobacco is removed by passing through water and the pipe. Moreover, smoking *hookah* after meals is not so harmful as smoking on an empty stomach.



Tea and Coffee.—These things are not so intoxicating as wine, Indian hemp etc. are found to be. But there is a peculiarity in them that when one tries to drink them repeatedly, one becomes, following the example of others, addicted to their use. Coffee is used just like tea but villagers are not quite familiar with it. Some villagers who happen to come to cities begin taking tea. No doubt by taking tea there is production of warmth, relaxation and stimulation in the body and one feels better and mentally soothed. It increases flow of perspiration and urination and protects against the bad effects of climatic conditions. But its repeated and continuous use produces dryness in the body and one falls prey to disorders such as constipation, dyspepsia, sleeplessness, palpitation, polyuria, shivering of hands. It is better, therefore, not to be habituated to these things. There is no harm in taking it off and on to keep warm and for relaxation.

CALLS OF NATURE

By calls of nature here we mean the urge to evacuate the bowels or to make water. One should not delay in attending to these calls when one feels them. Some people deliberately delay in answering the call when engaged in work. Especially is this the case with women, as they fail to attend to the calls due to shyness. It is very injurious to health because faeces and urine are waste materials which produce poisonous gases causing various ailments. The first and the foremost effect of such delay in answering the call of nature is that one gets headache, listlessness and distaste for work.

Such a habitual delay in attending to these natural calls weakens the intestines and urinary bladder and eventually one suffers from chronic constipation and micturition and stranguary. It is as necessary to allow the escape of gases formed

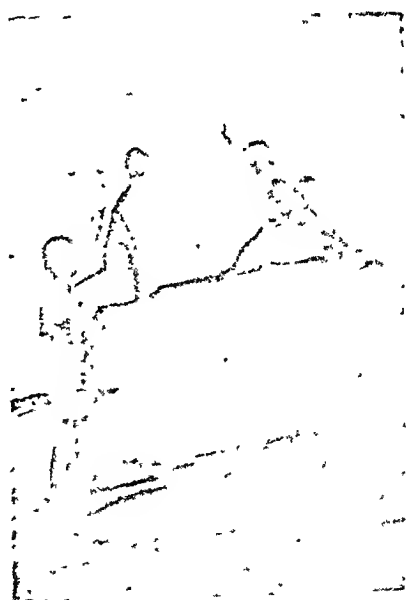
exercise is the morning just after attending to the call of nature. Those who cannot do it in the morning can do so in the evening, but it is never advisable to perform exercise on full stomach or on empty stomach. One should take a light breakfast in the morning and then perform the exercise.

Exercise should be done punctually and at a fixed time and one should do only so much that one does not feel very tired. Profuse perspiration, hard breathing, darkness before eyes and excessive fatigue show one has exceeded the limit. Such practice does more harm than good. Moderation in exercise is the golden rule. Moderate exercise dispels all signs of fatigue in half an hour.

In the beginning exercise should be limited to 5-7 minutes. This interval may gradually be increased to half an hour.

For villagers, the appropriate exercises are : *dand* and *baithak*, wielding of the clubs, fencing, high jump, long jump, racing, wrestling, swimming, cricket and *kabaddi*. Anyone or more of them may be chosen according to one's liking and circumstances. It is better to massage the body after exercise as it removes fatigue.

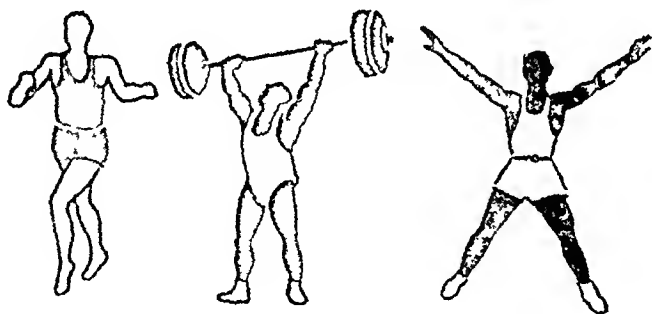
But the above exercises are not suitable for weak and aged people who should perform their exercise by massaging the body, and walking in the morning and evening around green fields. For those who have a weak eyesight and suffer from headache, *dand* and *baithak* are ill-advised. One should do less exercise in summer and more in winter. In our country phthisis and tuberculosis



in the intestines as it is attending to the call of nature, because they are very harmful to health and cause headache and other such ailments. However, it is unmannerly to allow the gases of the intestines to escape in the presence of others, and if one finds oneself in such need then one should do so in privacy by leaving the company.

PHYSICAL EXERCISE

It is necessary for each and every person to do some exercise to maintain his health. Exercise makes the body active and stout, produces natural hunger, relieves constipation, brings sound sleep and generates a feeling of buoyant happiness. The organs of those who do not exercise become idle and listless.



They lose the desire to work and suffer from dyspepsia and sometimes from piles also.

The work of villagers in open fields is itself an exercise, and so there is no need for them to do extra exercise. But it is necessary for those engaged in industrial work to exercise themselves in their courtyard or at some other open place. It will help a lot in keeping them healthy. The best time for

exercise is the morning just after attending to the duties of nature. Those who cannot do it in the morning can do it in the evening, but it is never advisable to perform exercise on full stomach or on empty stomach. One should take a light breakfast in the morning and then perform the exercise.

Exercise should be done punctually and one should do only so much that one does not get tired. Profuse perspiration, hard breathing, swollen eyes and excessive fatigue show one has overdone the exercise. Such practice does more harm than good. Moderation in exercise is the golden rule. Moderate exercise for half an hour of fatigue in half an hour.

In the beginning exercise should be light. This interval may gradually be increased to half an hour.

For villagers, the appropriate exercises are baithak, wielding of the clubs, fencing, high jump, long jump, racing, wrestling, swimming, cricket and kabaddi. Anyone or more of them may be chosen according to one's liking and circumstances. It is better to massage the body after exercise as it removes fatigue.

But the above exercises are not suitable for weak and aged people who should perform their exercise by massaging the body, and walking in the morning and evening around green fields. For those who have a weak eyesight and suffer from baithak are ill-advised. One should do light and more in water. In our country physical exercise



are prevailing, and neither the rural nor the urban population

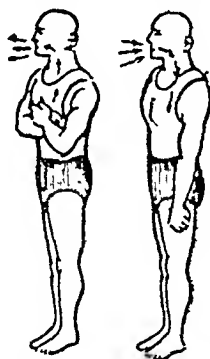


can be declared immune from the hovering dangers of these diseases. Generally the cause of these diseases is general weakness and noxious surroundings. Weakness of the lungs is particularly responsible for these diseases. Therefore, the villagers can keep themselves free from these diseases by strengthening their lungs by breathing in pure and open air and by taking simple nutritive foods.

Described below are certain exercises aimed to strengthen one's lungs.

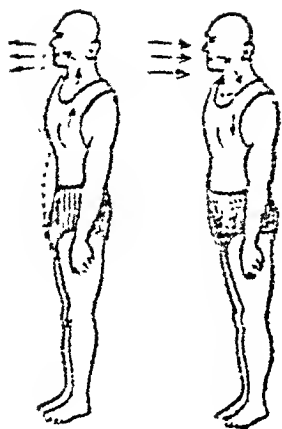
1. Stand upright, close the mouth and breathe slowly through the nose so that the inspired air reaches to the last corner of the lungs and the belly bulges out. Retain the

inspired air in the lungs as long as easily be done and then allow it to escape gradually through the mouth. While exhaling the breathed air, deflate the abdomen slowly because thus the whole of the inspired air will go out. One should practice this method for a few days.



Having attained good practice in the above method, attempt another method of exercise.

2. Stand upright, close the mouth and suck up the air through the nose and extend the chest. Exhale the air after retaining it inside for sometime. While exhaling the inspired air, bend the chest gently forward so that the whole of the air



comes out. Practise this method for a few days.

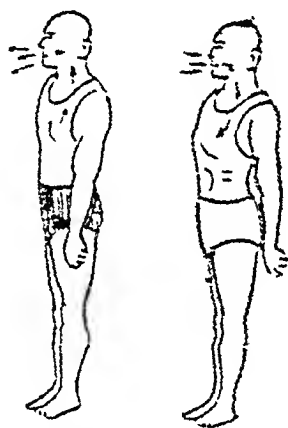
On becoming adept in this method, attempt the following.

3. Stand upright and thrust out the upper part of the body in such a way that the chest bulges out and the neck remains straight. After attaining this posture close the mouth and breathe through the

nose slowly. This will enable the inspired air to have access to the upper part of the lungs. Retain the air for sometime and then exhale.

4. After acquiring efficiency in the above three methods attempt all of them at a time one after the other.

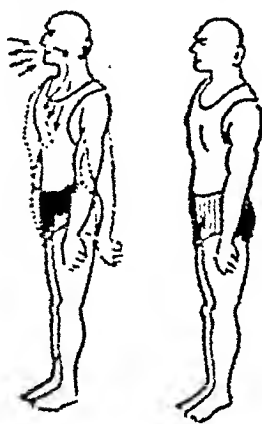
The first method is meant for the exercise of the upper part of the lungs, the second for the middle part and the third



for the lower.

Together, these exercises bring the whole lungs in full movement and the oxygen of the inspired air reaches each and every cell, strengthening them and increasing resistance to diseases like phthisis, tuberculosis etc.

A person can perform these exercises as many times in a day as his stamina permits.





adults aged 20-21 need 9-10 hour's sleep and people between 24-50 years must sleep 7-8 hours during the day and night. If a person sleeps less than 6 hours, there is probability of the development of some sort of disorder in his health. After 50 years of age one becomes weak and, therefore, to get more relaxation and rest one must sleep for 10 hours. Moreover, it is necessary for women to sleep a bit longer than man.

Nature has made the day for work and the night for rest. To sleep in the night, is, therefore, just in harmony with the natural laws and those who spend their nights in other enjoyments and sleep during the day spoil their health. To be habituated to sleeping in the day is to court depression and laziness, and in all likelihood to be deprived of sound sleep in the night.

It is better for farmers and labourers, however, to have a nap during summer so that their fatigue disappears and they find themselves quite fit to resume their work. During summer one should sleep at night in the open courtyard, in the rainy season in verandah or under a shade, and in winter inside the house. But while sleeping inside the house one should be careful that no lamp or lantern or any other thing producing smoke is burning inside the house as these things render the atmosphere polluted with poisonous gases. A room must not be inhabited by more persons than its capacity allows, nor is it good for two persons to sleep in one cot.

The evening meals should be taken at least 3 hours before retiring.

Cot is the best for sleeping, otherwise a wooden platform may be used. But one should never sleep on the ground particularly in rainy season, because, first, one does not enjoy sound sleep, and, secondly, due to dampness one falls prey to such diseases as rheumatism, fever, and indigestion etc. The danger of being bitten or stung by  and scorpions or other poisonous creatures is also  At night.

DRESS

It is essential to put on clothes to protect the body from heat and cold. Those who work in the sun should wear light clothes to protect them against the heat of the sun, a thick cap or a turban to cover the head. In winter one may wear clothes made of coarse cloth (khaddar) filled with cotton wool. Whether it is summer or winter one must put on shoes. Poor farmers and labourers cannot afford shoes due to their poverty and walk bare-footed. Owing to this reason very often their feet are pricked with a thorn or some poisonous insect bites or stings and then naturally they have to take to bed for a long time. In this way they not only put themselves to great distress and misery but their family also. Therefore, one must wear shoes.



Whether it is shoes or clothes they should not be tight. Tight clothes make one uneasy and they also do not last long. In tight shoes also the foot does not get comfort and due to pressure fingers become bent and sometimes bruised.

When after work one takes bath, the clothes we twith sweat must also be washed lightly and left in the sun to dry. Those who do not follow this principle have bad smell in their clothes which are unhygienic to wear.

Wet clothes, whether they have become so with sweat or rain, should not be worn as such for a long time. As soon as possible one must put off such clothes as by wearing moist or wet clothes one gets rheumatism, fever, cold and catarrh.

The clothes used as dress and the bedding must be kept in the sun for sometime. For villagers the best dress is white khaddar. Coloured clothes, particularly red or black, must not be used as dress in summer.

CLEANLINESS

To enjoy health cleanliness must be observed in each and every thing. If one takes most sumptuous foods, wears extra-fine clothes and resides in a palatial building but fails to observe due cleanliness, the use of these highly precious things will not conduce to healthy life.

To lead a healthy life clean and fresh air, clean water



and food, cleanliness of the body and the dress are not enough. Neat and clean dwellings and clean alleys, lanes and streets and the surroundings are also required.

Cleanliness of the body—It is very necessary to take bath to keep the body clean. But merely the bath is not enough to keep the whole of the body clean. One must also clean one's mouth and teeth. As soon as one gets up in the morning one should attend to the call of nature. Whatever one eats, the best and the essential constituents of it are taken up by the body and are transformed into blood and the residue of the diet is discarded as excreta which accumulate in the intestines and bladder. Therefore, one must form the habit of evacuating the bowels as soon as

from sleep. After that one should do some exercise and take bath. Before bathing one must clean one's mouth, teeth, eyes, nose etc. and on failing to clean these things some bad smell is developed in the mouth. Not only this, the teeth begin to decay and gums swell and are filled with pus, producing various kinds of diseases.

For cleaning the teeth it is not sufficient to irrigate the mouth with water. They must be cleaned daily with the help of a twig of acacia, neem tree or the tooth-brush. In this way the mouth and tongue are thoroughly cleaned and there is also some movement of the jaws and teeth.



If fresh twigs are not available, finely powdered charcoal of the babul tree mixed with salt and powdered black pepper may be used. On rubbing this tooth-powder the filth of the mouth and teeth will be removed and they will appear quite shining.



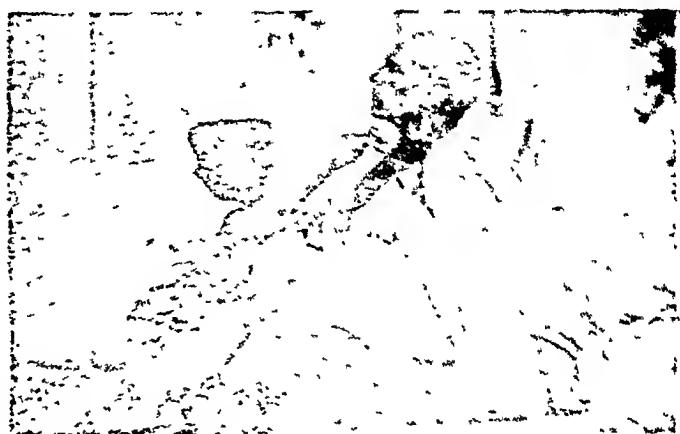
Some people become addicted to chewing betel leaf and they keep it in their mouth while sleeping in the night. This is not a good habit. The mouth remains dirty and the teeth are also spoilt.

As it is necessary to clean the mouth in the morning just after getting up from the night's sleep, in the same way it must be cleaned before going to bed. First, after taking meals the bits of food adhering in

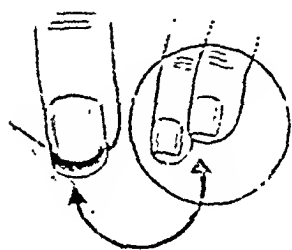
the fissures must be removed by a piece of a clean stick, and next the mouth washed thoroughly with water. The eyes must be washed with cold water more than once in a day because it will clean the eyes and improve their sight. Collyrium (surma) applied to the eyes before retiring will also keep eyes clean and enhance the eyesight.

Cleanliness of the Hair—The hair of the head must be thoroughly cleaned while taking bath and when water alone fails to

clean them, some soap may be used for this purpose. For women, who use more hair-oil and have bigger shock of hair on their head, it



is necessary to use soap or *gopichandan* (multani matti) to keep the hair clean, otherwise the hair remains dirty and becomes a good breeding-ground for the lice. These lice can be removed by repeatedly cleaning and using the neem oil.



After eight or ten days the beard and moustache must be trimmed and the pubic hair shaved. Those who do not care about these have lice in such places. The razor used for shaving must be thoroughly washed because by using an unclean razor ringworm and baldness

barber's itch may be produced.

Cleanliness of Nails.—The nails should also be cut periodically as dirt and germs adhere to them and this poison gets access to the food and makes one sick.

Sometimes scratching the wounds with these nails makes them suppurate.

THE HOUSE AND ITS CLEANLINESS

A majority of the population of our country lives in villages which number 5,00,000. But it is a matter of pity that due to the lack of education the villagers do not know where and how to construct a house and how to keep it neat and clean.

In villages the houses are not constructed according to a definite plan or pattern. Wherever one gets a site one starts building a house and covers it with thatch. In the selection of site for the house they do not give any importance to the nature of the ground, i.e., whether it is at a high level or a pit and damp place. They do not even consider whether the plot acquired for the construction of a house will meet their requirements or not.

The members of their family and the cattle are herded together in the same house and fire is also lit and food cooked inside it. They throw the rubbish and other filthy things in their courtyard and allow the children to make it



more dirty by their excreta. Their houses lack adequate

ventilation and in most of the houses there is found to be only one door and in this respect one may call them a pen for keeping hens. But due to their ignorance they think it to be quite safe and call it a "Box". But it would have been better if they knew that this box does not keep them safe but is the cause of the ailments of the whole family.

No one can deny the fact that the economic condition of the villagers is very bad, but if these houses are constructed according to the hygienic rules then it will not cost more than what they usually invest.

Construction of the House

Whether it is a building or a cottage it should always be constructed at a somewhat elevated, tough and slopy site so that the water of the rains may not collect there. It is not advisable to construct a house at a marshy, damp and semi-solid place, nor on a site which previously was a pit and later was filled with rubbish etc. Houses constructed on a damp and comparatively low level are always damp and the health of the dwellers is never found good. As to the houses constructed by filling a pit, their foundations are never firm, and they constitute a perpetual danger to the lives of the inhabitants. Besides, the issuing gases from the decomposition of the rubbish and filth are very injurious. One must also avoid the construction of a house in the midst of trees or near a pond or pool, because such houses always remain damp and there are mosquitoes which disturb one's sleep in the night and cause malarial fever.

Though *pucca* houses are best for dwelling, yet if the poor people of the villager, who cannot afford such a construction, exercise due attention to the right conditions, they can make their *kachcha* house as good for living in as a brick-house. At whatever place a house is constructed, it should be on a firm and elevated platform. If one has no choice but to selecte

Cleanliness of the village, lanes and streets

If everybody were to care for the cleanliness of his own house only and not to pay attention to the cleanliness of the village it will not suffice for keeping healthy. In villages there are no municipalities as there are in cities which are responsible for the cleanliness of the area. But if the people wish, they can individually keep the streets of their village clean or collectively arrange for its cleanliness. Everybody can keep the surroundings of his house clean, abstain from throwing dirt in the street and restrain children from making the street dirty. The village can thus be kept clean. If they are unable to do so themselves they can levy a toll to pay the sweepers to keep the path-ways clean. This should not be difficult, only there should be a feeling of responsibility.



In villages it is customary to build dung heaps and waste mounds inside the village and use them for manure in season, but this is a wasteful process. In the first place, the evil vapours arising from these heaps spoil the air of the village. Secondly, the valuable portion of them is washed out by rain and carried away to the ponds where it spoils the drinking water for the cattle. Hence the best method of storing the farmyard manure or household refuse is to store it in a pit in a corner of the field from where it can conveniently be spread when required for manuring the field and cannot be a source of nuisance to the population of the village.

The villagers make dung-cakes to use as fuel. Some people paste the dung-cakes on the walls of their dwellings or



in their courtyard. This practice is unhealthy. This spoils the air of the house and a bad smell is produced. Dung is a valuable manure. It should be used as such for increasing the yield of food-stuffs. For fuel, fire wood should be used. But if there is no alternative but to use dung as fuel, dung-cakes should be made outside the village.



Villagers mostly attend to the call of nature in the vicinity of the village. They should go as far out as possible to the open fields for this purpose. After easing themselves they should cover the refuse with earth. In this way the air of the neighbourhood will not be spoilt and manure will be made for the field as well. For women and children who cannot go so far out there should be enclosures near the habitations and arrangement made to keep them clean.

Near the villages there are also ponds containing filthy water.. All filth from the village flows into these ponds, people defecate all around them which is leached into them by rain water, cattle wade in them adding their refuse, dirty clothes are washed in them and flax is allowed to rot in them for taking out the fibre. Some people bathe in this water and rinse their mouth with it. They should be made to understand the harm done by it and realize the need for cleanliness.

It is necessary to store water in ponds for cattle and other uses but it is also necessary to keep it free from filth.

Burial and Burning-Grounds

For the disposal of the dead burial and cremating grounds are required. This should be outside the inhabited area far to the north or south of it. Enough fuel should be used to cremate the dead. The grave for burying the dead should be dug 5-6 feet deep. Some people do not completely burn their dead and throw half-burnt corpses into the river and do not bury these dead deep enough. These practices must be eradicated. Dead bodies or pith should not be thrown into the rivers because the people living on their banks drink their water which can be injurious to their health.

SEXUAL DESIRE

The purpose of our publishing this book will not be completely served if we do not give some hints on sex. No doubt sexual desire is a natural want like hunger or thirst, but it should be emphasized at the same time that there are certain limitations for the fulfilment of every desire. If a person keeps within these limitations and uses moderation he preserves his health and lives a comfortable life, but if he commits excesses and trespasses the limitations he has to face calamities and meet a speedy death.

A boy or girl becomes conscious of sexual desire about the age of twelve. This period is very critical for them. There is no discrimination of good or evil at this age, and it is the duty of the parents to keep a strict eye upon them, to note their movements, and as soon as any misbehaviour is observed to correct it and explain the reasons, and when they come of age, when according to natural need it is necessary to unite the sexes, to provide for their union according to their religious and social customs.

Now the mates should particularly keep in mind that as digestion is impaired by over-eating so is health by over-indulgence in the sexual act. As chronic indigestion weakens a person and leads him early to grave so does sexual excess undermine the health and invite speedy death. Even if death does not come early the person has to lead a miserable life. Not only is the male partner affected, but the female partner also suffers loss of health, beauty and youthful look. Besides, sexual immoderation leads to frequent pregnancies and the offsprings, in consequence, are not sturdy and healthy, and are susceptible to constant ill-health and early death. Even if they survive they are not capable of competing successfully in the struggle for existence. Their parents find it hard to rear and educate them. In short, such children prove a calamity to their parents.

and a burden on the country and the nation.

Now, the question is : Whereas the satisfaction of sexual desire is a necessity and, as a consequence of it, so is the birth of children, what procedure should be followed in order that the couple may not suffer in health and the offspring may also be healthy ? The answer is moderation. That is, the couple should not unite sexually until they can no more help it ; nor should they, after having done so, feel any weakness. On the contrary they should rather have a feeling of well-being and relief after the act. Accordingly, a young, healthy and vigorous couple may copulate twice or three times a week, but it is better to curb their desires as much as possible. Objection may be raised that by so doing immoderation is avoided but there can be no control on birth. For birth control it should be kept in mind that conception can take place only when the spermatozoon in the male semen penetrates the ovum in the female sexual parts. The ovum is generated in the female usually a few days before the beginning of the monthly course and exists there a few days after this period. Experts are, therefore, of opinion that if the couple abstain from sexual intercourse from the 12th to 21st day after the beginning of the menstruation there is very little probability of pregnancy.

PREGNANCY AND PREGNANT WOMAN

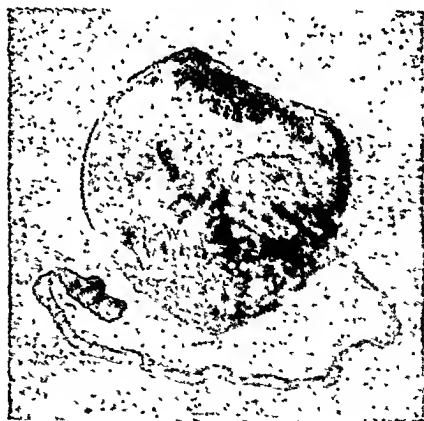
In the semen of the male there is a special kind of animalcules which are named spermatozoa. They are so small that they can only be seen with a microscope. Their length is about one five-hundredth of an inch. Their head is flat but pointed like a spear and a long moving tail is attached to this head, by the help of which they move forward.

foetus in which the head and trunk are distinctly visible, hands and feet begin to form and in the course of 3 months its length is between $2\frac{1}{2}$ -3 inches and sex is determined. At the end of 4 months its length is between 5-6 inches and weight 2 to $2\frac{1}{2}$ chhatanks. In the fifth month its length is 10 inches and the weight about 5 chhatanks and hair grow on the head. In the sixth month its length is 15 inches and the weight nearly half a seer. In the seventh month its length is 15 inches and the weight $1\frac{1}{2}$ seers to 2 seers. In the 8th month the length is 17-18 inches and the weight 2- $2\frac{1}{2}$ seers. At the end of 9 months its length is 18-20 inches and the weight is 3-4 seers, its eyes open and it is now capable of emerging from the mother's womb and living independent life.

Placenta and Umbilical Cord.

The Placenta is soft and pourous organ which establishes communication between the mother and the child by means of the Umbilical Cord. The Placenta is circular in shape, seven to eight inches in diameter, about one inch in thickness and nearly half a seer in weight.

The Placenta is the functioning faetal lung taking up oxygen from the maternal blood and giving up carbon-dioxide.



In addition to its respiratory, excretory, nutritive and endocrine functions, the placenta presents a protective barrier action against the passage of many drugs and

At the end of 4-5 months the movements of the foetus are felt in the body which is the surest sign of pregnancy. The breasts of the pregnant woman suffer changes: two months after fertilisation, the breasts begin to enlarge and develop milk in them. The colour of the areola around the nipple becomes deep red. In the beginning a whitish fluid can be pressed out of them, but in the last days of pregnancy milk flows out of them on pressing.

Before these indications it should be observed that during the first 3 months of pregnancy the uterus cannot be felt in the abdomen but when it grows it can be felt in the fourth month. In the fifth month it ascends more to the navel and in the sixth month upto it and afterwards above it and the abdomen is distended.

Duration of Pregnancy

Generally the duration of pregnancy is known as nine months, but actually the correct duration in most cases is 28

days. If each month were to be counted as of

30 days, a child is born

usually after 9 months

and 10 days; but some-

times it takes a day or

two more or less. Some-

times a child is born

after 10 months and

rarely after 2 years. If

a child happens to be

born before the 7th

month it does not usu-

ally survive, but after

completing 7 months a

child can survive.



Determining the Sex

Although there are no definite indications of a child in the womb being a male or a female, yet after frequent observations and experience certain signs have been fixed upon as indicating the sex of the foetus. For example if the face of the pregnant woman is glowing, she keeps happy and gay, does not feel much sluggishness, the nipples are red and the right breast is seen comparatively larger than the left one, on pressing the breasts thick white milk oozes out, she has liking after fancy, tasteful foods, and has no sexual desire they point to the child being a male. But if, on the contrary her looks are not bright, she feels lazy, the nipples are dark red, the left breast is felt larger than the right one, and thin white fluid oozes out of them on pressing and she has appetite for distasteful food, the child will be female.

When Will the Child be Born ?

Although this question can be answered by saying that the child will be born after completing the period of pregnancy, i. e. 9 months and ten days, to fix almost the correct date the question has to be answered a little more at length. If the last date of the cessation of menstruation is known, the date of childbirth can be fixed. For example, if a woman has completed her last period on 1st January, counting 9 months from this date and adding 7 days the period of pregnancy, 280 days, is completed on the 8th of October, and this should be the date of childbirth. But as mentioned before this is not the exact date. It may be wrong by a few days.

Care of the Pregnant Woman

Pregnancy can be safeguarded only by taking care of the pregnant woman. Neglect will spare neither the pre-
nor the pregnant woman. Sometimes the life of the pi-

woman is endangered along with danger to pregnancy.

For safeguarding the health of the pregnant woman, she must be housed in clean, well-ventilated quarters. For sleep and rest a room should be set apart for her which is kept clean and to which air and light have free access, clean water should be given her to drink, she should have daily bath, cold in summer and warm in winter, but if she is weak she should have warm bath in summer as well. She should put on clean dress after bath in keeping with the season and have loose fitting garments. Close-fitting garments should be avoided nor should the girdle be tied close.

A pregnant woman should sleep for at least 8 hours daily. There is no harm if she sleeps for an hour or two at noon, in summer specially. But she should not lie in bed for the most part of the day since by so doing digestion is impaired and constipation sets in which is very harmful for the mother. She should busy herself with the household work as much as possible, but avoid running, springing or lifting heavy weights, or going up and down the staircase frequently. Riding a tonga or a bullock cart in which she is jolted violently is not suitable for a pregnant woman.

A pregnant woman must be spared all sorts of worries, sorrow, anger or fear. Miscarriage results sometimes from sudden fright or some unusual shock. In short, to give birth to a sturdy and healthy child, the gravid matter should keep happy and joyous, have clean thoughts, avoid sexual intercourse and not visit any place affected with contagious diseases such as smallpox, chickenpox, cholera or plague at present or in the past. She should never be given any active purgative or emetic.

Diet of the Pregnant Woman

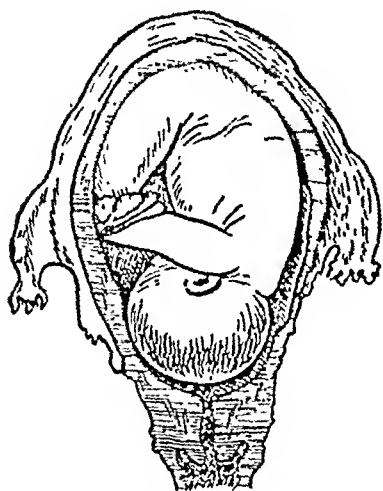
It is very necessary that the pregnant woman should have suitable food. Her diet should be simple, nourishing, and easily digestible, and may consist of bread and dal moong (green gram) or fresh vegetables like calabash, cucumbar (lowki, ghia), tinda, ridge gourd (torai), parwal, turnip, beetroot, carrots, tomato and spinach. Non-vegetarians may have gravy of mutton. It is better to cook some vegetable along with meat. Besides these, milk, rice-puddings (Kheer, firni), sago, and *khichri* may also be given. Soured milk (Dahi) or butter-milk may be taken liberally. Half-boiled egg and fish may also be taken. Fruits like mango, melon, water-melon, pomegranate, grapes, loquat and other available fruit should be taken as much as possible. But all sorts of wind and constipation producing and hard to digest foods should be avoided, e.g. Bengal gram, beans, cow gram, black gram, lentil, colocasia, brinjal, and lady's fingers. Intoxicating substances should compulsorily be abstained from. Tea and coffee etc. are also not advisable. In winter, however, they may be enjoyed with moderation.

Whatever food is served to the pregnant woman should be well cooked and fresh. Half-cooked and stale food should in no case be allowed. Meals should be taken when hungry and just too little rather than too much.

CHILD AND MOTHER

Although childbirth in every family is an occasion for festivity, and according to the means there are held dances, music parties, sweetmeats are distributed, yet, sad to say, little attention is paid to the arrangements necessary for the welfare of the child. Generally the mother is held responsible for the welfare of the child, while at that time, she, ~~has~~ —

has frequent need of making water or passing stools. Some-



times this pressure causes stoppage of both eliminations, and thereby great trouble. On account of restriction of bowel movement pain is felt in the front part of the belly. This is false labour; in actual labour the pain is intermittent and growing gradually in intensity. Ignorant midwives take false labour for genuine and begin measures for childbirth endangering both mother and child.

The remedy is to give 3 tolas of castor oil in lukewarm milk, and if urine is held back to give milk with water.

The Time of Childbirth—When the time of childbirth approaches, successive waves of pain come after an interval 15-30 minutes and as it draws nearer pain becomes more tense. This is true labour. As soon as sign of childbirth appears the expectant mother should have a bath and clean dress and some experienced and clever midwife should at once be called in. In the beginning of labour the pregnant woman may sit or lie as she will, but when the pain grows more intense she should lie down. It is not advisable to sit or stand at this stage because in these positions labour is difficult.

Directions for the Midwife.—The midwife should tuck up her sleeves, pare her nails and clean the inside and wash her hands upto the elbows with soap and warm water. Then she should examine the woman in labour.

Here it should be borne in mind that no medicine should be given to the woman in labour to ease her pain of childbirth. The pains are there to expel the child as a process of nature. No interference is required either by tying a rope or sheet round the waist of the mother or inserting midwife's fingers into the genital passage. The foetus swims in a sac full of water inside the womb of the mother. This sac is attached only at one place to the uterus where the umbilical cord is formed. In labour when this sac is detached from the uterus, the uterus begins to push this sac outward. To attain this end the uterus contracts repeatedly and pushes the sac downwards till the sac reaches the neck of the uterus. This neck also opens nearly 15 fingers wide, the sac bursts and the water contained in it partly flows out and partly remains within. At this stage the thin end of the sac in which is contained the head of the infant is below and the thick end which contains the lower body of the infant is upwards, so that the infant comes out headlong. This is the natural mode of birth. But sometimes at the time of birth the head is upwards and the body downwards which is an unusual mode of birth. In short with the bursting of the sac the head of the infant comes out. Sometimes the pressure on the perineum causes its rupture, and therefore the midwife should support the head of the infant as soon it comes out on her fingers and as the pains come support it and press it a little backwards so that the head of the infant may incline towards the breast and as soon as the passage is fully open allow the head to come out. In this way a temporary short obstruction is presented to the birth of the child but the danger of the rupture of perineum is avoided. Besides, if at this time, a helping woman places the palm of her left hand on the passage in such a way that the thumb is on one side of the passage and the other fingers on the other side, and exert a light pressure on the perinium (avoiding force) its rupture is prevented.

It should be borne in mind that the umbilical cord serves to convey blood to the child's body which is the source of its life, and if it is constricted somehow the flow of blood stops and the child's life is endangered. Therefore, to save the child's life it is the duty of the midwife to look at once as soon as the head comes out, by feeling the neck of the infant whether the umbilical cord surrounds its neck. If it is so, the midwife should gently draw it out and over the head and free the neck. But if several folds of the cord surround the neck and there is the danger of the child suffocating or there may be the danger of the cord snapping due to force and loss of blood then knots should be tied on the cord, one in proximity of the child's naval, and another in proximity of the mother and the cord severed between these knots by means of a pair of sharp scissors and the folds around the child's neck should be taken off.

Sometimes it so happens that the head of the child comes out but the rest of the body is held back long. In such a case ignorant midwives try to pull out the child irregularly, but by so doing the cervical vertebrae are displaced and the child dies. Therefore, in no case should an attempt be made to draw out the child. The right procedure in this case is

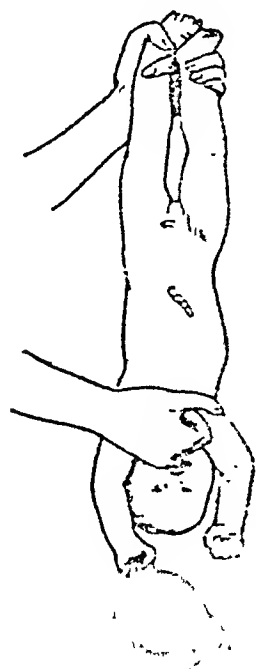
the midwife to insert her two fingers in the armpits of the child and pull it out gently and when one arm of the child has come out she should pull the other one out also in the same manner. After this the rest of the body will come out easily. But in this case the midwife should exert the pressure of her left hand on the abdomen of the mother otherwise, sometimes, the mother loses much blood and her life is endangered.

When the child's head has come out the midwife should support it on her right hand and exert the pressure of her left hand on the abdomen of the mother and as the uterus contracts, press it downwards. By so doing the expulsion of the rest of the body of the child is facilitated, and when the

whole of it has come out another helping woman should press the uterus in the pelvis of the mother. The latter should not remove her hand but keep on pressing until the placenta is completely expelled and a belt has been tied round the waist of the mother, so that due to this pressure the uterus contracts and the bleeding is stopped. Sometimes due to absence of this pressure so much blood is lost that the life of the mother is endangered.

When the child is born, the midwife should, first of all, insert her finger in the mouth of the baby and clean it. The baby cries at the time of cleaning, which is the welcome sign of the life and soundness of baby for the mother and other relatives, but if the baby does not cry cold water should be dashed at its face so that it may gasp and cry. Should this not help, the baby should be dipped in a tub of cold water and taken out at once ; now it will gasp and cry. But if even this fails the following measures should be taken.

The baby should be laid flat on its back with the shoulders resting a little higher than the rest of the body and the head lower. Now taking hold of the arms of the baby by the elbows draw them straight towards the head and blow into the mouth of the baby. By blowing air will enter the lungs of the baby. Then bringing the arms down, press them on the breast so that by the pressure of the arms the air is expelled from the lungs. Raising the arms, blowing into the mouth, bringing the arms down and pressing the air out should be repeated for an hour or two at the rate of 18 times an hour. If the baby begins to breathe and cry it is well, if not it should be taken as dead.



Cutting the Cord.—When the baby cries after being born, the umbilical cord should be squeezed out towards the navel of the baby thus sending some more of mother's blood into the



body of the baby and then at once tied tightly with a piece of sterilized thread at a distance of 3 fingers from the navel of the baby. A short distance away another knot must be placed further towards the mother and between the two knots the cord must be severed by means of a sharp, sterile pair of scissors. The thread and scissors must have been boiled in water and allowed to remain in boiled water and covered until wanted for use.

Some ignorant midwives do not care for sterilization and use gut for tying knots on the cord and blunt knife or sickle for cutting the cord. Such practice leads to entry of poison in the body of the baby who suffers from tetanus and its life is put in danger.

Generally two to three hours after birth the baby passes loose stool which is very good, but if it does not, a purgative (ghutti) should be administered or 3 mashas of castor oil mixed with 1-2 nasha of pure honey should be given to lick.

When the cord has been cut the baby should be bathed in warm water, and its body wiped dry with a clean towel or piece of soft khaddar cloth followed by anointing with sesame oil. Then the baby should be wrapped in clean soft flannel or piece of khaddar cloth and placed in the lap of the helping woman. A small piece of clean muslin or other soft cloth should be taken and a small hole cut in the middle of it and passed over the cut end of the umbilical cord and the rest folded over it and some boric acid sprinkled over it and placed on the cord and then a pad of clean cotton or soft cloth should be placed over it and tied together by means of a strip of flannel or soft khaddar, but not very tightly pulled together. It should be tied just tight enough to hold the pad in place on the umbilical cord. The cloth slipped over the cord and the pad placed over it should be changed daily and boric acid sprinkled fresh each day till the cord dries and falls off.

Bleeding of the Cord.—Should the cord bleed after cutting, it should be carefully examined. If the knot is loose, another knot must be tied above it and a pad of cotton or soft cloth dipped in a solution of one masha of alum in a little water placed on it or, if available, a little cotton soaked in tincture steel may be placed over it. The bleeding will stop in a short time.

Suppuration of the Cord.—Usually the cord dries up and falls off within 4–5 days and a slight scar is left in its place which heals up by applying oil or ghee in two or three days. But sometimes, instead of falling off by itself, the cord is separated by some pressure and bleeds which can be stopped by the solution of alum as mentioned above or tincture of steel. Sometimes the cord becomes inflamed, a condition which can be removed by washing the cord daily with the decoction of neem leaves and an ointment made by finely grinding together white lead (6 mashas), catechu (Katha papariya,

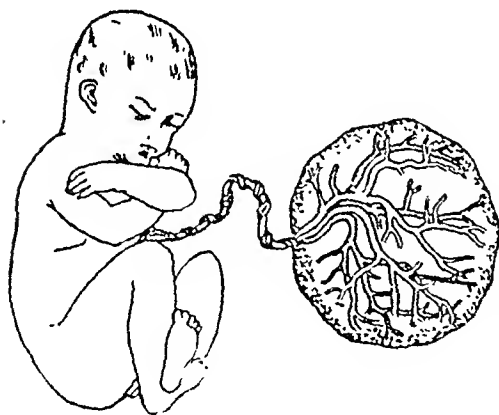
3 masha), and camphor (one masha) and making a paste with vaseline or ghee ($\frac{1}{2}$ chhatank), or jasmine oil may be applied on the navel and some boric acid dusted over it, a little cotton placed on it and bandaged.

Swelling of the Umbilicus

Sometimes on account of carelessness in cutting the cord, or some other reason the navel swells, and though it yields to pressure, yet on taking off the pressure it resumes its swollen form. Although the baby does not feel discomfort on account of it, this malformation persists for good. To remedy this, a small bag of cloth should be filled with finely powdered collyrium, made in the form of an amulet, and placed on the navel and bandaged. It is not necessary to tie it tight. After a few days' continuous application the swollen navel assumes its natural form.

Expulsion of Placenta.—Having taken care of the child,

attention should be given to the mother. After childbirth the mother usually feels cold and sometimes shivers. There is no cause for anxiety, only she has to be covered with a blanket or light quilt.



About half an hour after childbirth the placenta is expelled. If it does not come out within this time, the midwife should press down her left hand on the abdomen and as soon as pain is felt in the

uterus, get hold of the uterus and forcibly press it together. By this means the placenta is squeezed out of the uterus. After the expulsion of the placenta the uterus should be pressed and squeezed unremittently so that any blood or clots remaining in it may be expelled as well.

After the Expulsion of Placenta.—The private parts, thighs and pelvis of the mother should be wiped clean with a pad soaked in warm water and dried by means of a piece of clean cloth. Clothes and material soiled with blood or discharge should be removed and a belt of coarse linen or khaddar, kept ready beforehand for the purpose, wrapped round the abdomen of the mother opposite the uterus rather tightly and fastened by means of a safety pin. A clean bed should be made and the mother laid snugly in it. She should not be allowed to move or get up at all. There should be no noise or disturbance in her room and the baby may, preferably, be laid beside her. If it is winter the room should be warmed with coal fire, and if it is summer doors and windows should be left open but draughts should be prevented.

CARE OF THE CHILD

Children are not only a source of joy and happiness to the parents, but are a valuable asset to the country and the nation also, even to the whole world. The child of today will be the adult of tomorrow and its talents will raise the status of the nation and the country and carry the banner of humanitarianism all over the world. But this can be possible only when they are strong and healthy in every way and their physical powers are sound. For this purpose special care should be taken of the child from the time of its birth and best arrangements made for its upbringing. In fact suitable arrangement of the upkeep of the baby from time

is of fundamental importance and is responsible for its attaining the normal span of life and keeping healthy and happy throughout life.

Healthy Baby.—At the time of birth a healthy infant is 18-20 inches in length and 3-4 seers in weight. A boy is somewhat larger and heavier than a girl. A healthy infant cries at once after cleaning its mouth, which is a sign of its being healthy, but if an infant after birth



does not cry when its mouth has been cleaned measures given earlier should be taken to set its respiration going.

A Half-dead Baby.—Sometimes a baby is born half-dead and does not cry after birth when its mouth has been cleaned. If the midwife is clever, she can save its life.

1. If its face looks blue, after cutting the umbilical cord, one or two tolas of blood should be squeezed out of the cord away from the infant's navel, and then the cord tied. If the infant does not cry even now, attempt should be made to make it breathe as described in the previous pages.

2. If its face looks sallow, some blood should be sent into the infant's body by squeezing the umbilical cord towards

its navel before tying the knots and cutting it as usual.

Bathing the Baby.—When the cord has been cut, the baby should be bathed in tepid water. If it is winter the baby should be protected from cold by making a fire near it in a brazier. A helping-woman should pour water while the midwife cleans the baby with soap. The soap used should be of good quality and the eyes of the baby should be protected from soap or dirt. The body of the baby is at this time slippery on account of having a waxy coat and soaping makes it slipping as well. The midwife should, therefore, be very careful about her hold on the baby. There is no harm if gram flour (Baisan) is used for cleaning the baby in place of soap. If some of the waxy coat remains adhering at places it should be left in place without attempting to rub it off with force. It will disappear after two or three baths. After bath, the baby's body should be wiped dry with a clean towel or piece of soft khaddar. It should then be wrapped in flannel or other soft cloth and given in the lap of the helping-woman or laid in a small bed for the time being, and, when the mother is relaxed after the expulsion of the placenta, placed by her side. The mother will feel comforted thereby after the pangs of childbirth.



When bathing the baby all its parts should be carefully examined, for sometimes the passages of urine or stools are blocked and can be opened at that time with appropriate help.

After bathing the baby on the first day, when its umbilical cord has dried and fallen off, it should be bathed daily. Until the baby is a year old, lukewarm water should better be used for bath; later on warm water

may be used in winter and cold water in summer. It should be remembered that infants cannot bear cold. They catch cold easily and should not be bathed for a long time. At the utmost 4 minutes should be sufficient, and no draught of cold air should be allowed while bathing. After bath, the baby should be wiped dry and covered in dry soft cloth and the baby should not be taken out in free air for 3-4 hours. It is better to put it to the breast of the mother. If, before bath, the baby's body is gently rubbed with mustard, seacame or cocoanut oil it has very good effect on its growth.

DIET OF THE BABY

Although cleanness of the baby and clothes and freedom of sleep and rest are quite important things in the care of the baby, the most important factor is the appropriate feeding of the infant.

Mother's Milk.—The natural food of the baby is the mothers' milk and that is why Nature provides it in mother's breast before the arrival of the baby. Therefore, there is no food better than mother's milk for the baby, but if, for some reason, the baby is deprived of mother's milk it should be suckled by a wet nurse or brought up on cow's or goat's milk or artificial milk preparations. Mother's milk



hours after birth. Mother's milk or other

food must be given regularly at fixed hours. If the baby cries at odd hours it should not be quieted by feeding. It is possible that it cries on account of stomachache or some other reason. By feeding at fixed hours its digestion will not be impaired, its growth will be favourably affected. It is not proper to feed the sleeping baby several times. As far as possible the baby should be habituated to sleep in the night after feeding and not to have the next feed until it has had a sound sleep and wakes of itself. Whenever the baby is put to the breast, the breasts should be washed with warm water before and after the feed, and the baby's mouth should be cleaned after the feed. The baby should not be put on breast after work and exposure to fire or sun or sexual intercourse until the body temperature is normal. Also in a state of excitement or grief or anxiety or anger the baby should not be suckled.

Both the breasts should be given alternately, and in a sitting posture, so that the baby is nearer to the breast and can suck comfortably. It is not proper to give milk while standing or lying. In the lying position the baby strains itself constantly to look at the mother with one eye and thus there is likelihood of its becoming squint-eyed. If the baby sucks at the breast from a distance, the breasts will become loose and unshapely.

If either of the nipple is bruised it should not be given to suck, for the blood and pus from the bruised nipple will reach the baby's stomach and make it ill. If both the nipples are bruised, even then no attempt should be made to feed the baby from them. Care should be taken to enable them to heal soon.

Feeding Time.—In the beginning for one month the baby should be given a feed every two hours. Afterwards the interval should be gradually increased and a baby of 3 months to 6 months should have a feed every three

Ass's, Goat's Cow's or Buffalo's Milk

If the baby cannot have mother's milk or milk of some other woman it may be brought up on ass's, goat's, or cow's milk, and if this is also not available buffalo's milk may be given.

Ass's Milk.—Ass's milk is cold and closely resembles woman's milk. Therefore babies tolerate it generally. The quality of lime, sugar, and other nutritive ingredients in it is nearly equal to that in woman's milk. Babies thrive, therefore, well on it. Consumptive or rachitic babies derive much benefit from it.

Goat's Milk.—Though cold, it also is a little better. It is digested with greater difficulty than the human milk. Yet, with a little correction, it can be given to the baby. It causes profuse urination and relieves constipation.

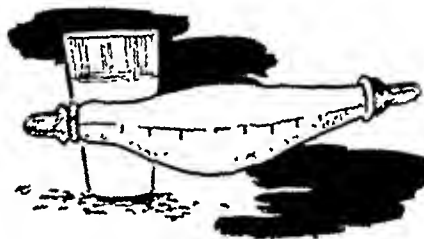
Cow's Milk.—Cow's milk is very useful for healthy people, but because it is thicker than human milk it can be given to the baby only after correction. This can be done by adding equal quantity of water to cow's milk, boiling it, and sweetening it with milk-sugar instead of ordinary cane-sugar and then, so corrected, it can be given to the baby, and is easily digestible.

Buffalo's Milk.—Buffalo's milk is much thicker and has greater amount of fat. Therefore, it is not at all suitable for the nourishment of the baby. Yet if there is no alternative, it should be diluted with more than equal quantity of water, boiled, and sweetened with sugar, preferably milk-sugar.

Quantity of Milk.—If the baby has to be given animal milk, the timings should be the same as given under mother's milk, but the quantity should be adjusted according to the age of the baby. A healthy baby should receive during the first and second week half a chhatank of milk every two hours, and afterwards the quantity and interval should be gradually increased but the appetite of the baby must not be exceeded. It should not receive more than its appetite.

Method of Artificial Feeding—When it becomes necessary in the villages to have recourse to artificial feeding it is customary to make a wick of cotton wool, dip it in milk and give the baby to suck or pour the milk in its mouth by means of the spout from a spouted vessel. Both these methods are unsuitable. Instead a feeding-bottle should be used which may be available in the village or can be found in the nearest town or city at a grocer's shop.

Feeding Bottles—While feeding, the bottle should be held in such a way that the baby can easily suck from it. If it is too low it should be raised by putting some cloth underneath. When the child is one year old it should be fed with a spoon or if possible with a cup.



These bottles are of several kinds. The best bottle is one which can be easily cleaned. The narrow end of the mouth carries a rubber-nipple with fine holes. The bottle is filled with milk and the child sucks at the nipple. The milk passes through the holes in the nipple into the mouth of the child. The other and broader end of the bottle also carries a rubber stopper. This stopper is taken out to fill the bottle with milk, and after suckling the child this stopper is taken off to clean the bottle. Before giving the feed the holes in the nipple should be examined. They should not be so fine that the child can suck through them with difficulty nor should they be as large that a large quantity of milk is sucked in at once. These bottles also have marks denoting the quantity of milk which is very convenient for giving a known quantity of milk to the child. If some milk is left behind in

the bottle after suckling the child, it should be rejected at once as unusable. Whenever the child is fed milk should be warmed. Cold milk makes the child ill.

Cleanliness of the Vessels—The vessels for boiling and storing milk should be clean and tinned. Untinned copper or brass vessels are not suitable for boiling or storing milk. Aluminium ware can be used for boiling milk, but the milk just after boiling should be transferred into another tinned vessel or porcelain ware. The pots for milking and the hands of the milkman should also be clean.

Milk Cattle—The cattle whose milk is to be given to

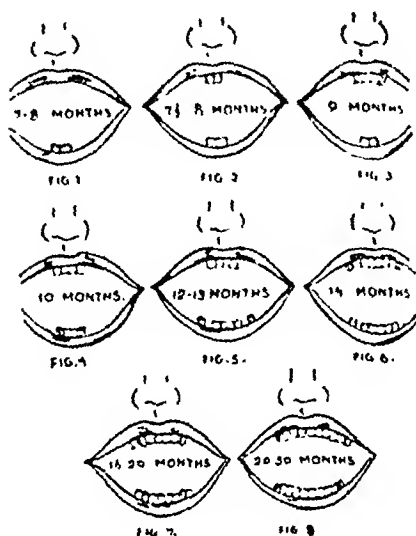


the child must be healthy. In no case should the milk of a diseased animal be given to the child. If the udder of the animal is wounded, its milk should not be given. The milch cattle should have nourishing fodder, oil cake, cotton seed and bengal gram according to need. Its milk will be good

according to the degree of its good feeding. Similarly, it should have clean water to drink. Dirty water affects its milk and, consequently, the child. Also, it should be borne in mind that the cattle kept tethered in the house receive dry fodder or chaff only. Their milk is not so good as that of the cattle grazing free in fields or receiving green fodder along with chaff. The milkman, before milking, should wash his hands and the udders of the animals and then milk in a clean vessel.

and other relatives can rest with satisfaction. When a tooth is about to cut the gum becomes swollen, there is some pain

or itching in the gum and the child moves its jaws about or rubs them upon each other or sucks its fingers. Saliva flows from the mouth of the child, and it feels unusually thirsty. Some children get diarrhoea, some dysentery, the digestion is impaired. Appetite wanes, milk is not taken eagerly, vomiting is frequent and some get fever as well. Some have epileptic fits and some get sore eyes.



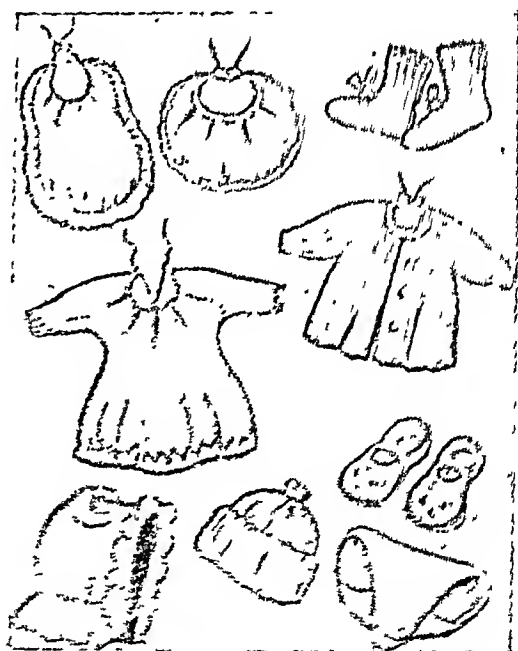
After all at first two front teeth appear in the lower jaw, after them come the corresponding two teeth in the upper jaw followed by two teeth on either side of the first two in the lower and the upper jaws. And when the child is one year old the lower and upper pair of molars are cut followed by the upper and lower pair of canine teeth. Last of all appear 4 grinders, two in the upper and two in the lower jaw. Thus a set of 20 teeth is completed.

Those children whose health is sound cut teeth easily, but weak children suffer much pain during teething. Especially those with bad digestion have worse digestion during teething. As far as possible digestion should be attended to, and no food which is difficult to digest should be given. If the child is constipated, 4 mashas of castor oil mixed with 4 mashas of pure honey should be given to lick and

glycerrhiza root with a little salt mixed in honey rubbed several times a day on the gums. If the gums are swollen and there is delay in the teeth coming out, a slight incision should be made on the gum by a skilled surgeon.

Child's Clothing

Everybody dresses the child according to his means with costly or cheap clothes, but it should be borne in mind that whatever clothes are put on must be clean and loose. No tight-fitting garment should be worn. In winter the head must be covered and feet should also be kept warm. When the child is able to walk, a loose shoe should be worn.



The bed under the child should be soft. In winter a cotton wool mattress must be used and covered with a sheet which can easily be changed when soiled. Hot and dirty stuff should not be placed under the child.

Child's Sleep

Little children sleep much for 12 or 14 hours. Afterwards, as they advance in age, the duration of sleep shortens. Usually the child sleeps by the side of the mother, but it is better to put it to sleep in a separate room. In summer the mother and the child sleep in the open air, but in winter special care must be taken.

the child warm if sleeping alone, and if by the side of the mother, that it is not overlaid by the mother. It is not right



to form the habit of sleeping in the lap of the mother : it is troublesome to the mother. Generally the child goes to sleep after the feed. When it has fallen asleep it should not be disturbed, for when it has completed its sleep it will wake up of its own accord. As far as possible no noise should be made near the sleeping

child and it should be allowed to sleep unmolested. Waking up from unfinished sleep makes the child ill.

The face should not be covered during sleep. If flies or mosquitoes etc. disturb it should be covered with a piece of muslin or net so as to allow ingress of fresh air and keep off flies etc.

Crying of the Child

Generally the infant cries as soon as born, which is the sign of its life and health. Afterwards, when it feels hunger or pain, it gives expression to this by crying.

When the child cries for hunger it throws about its arms and legs and moves its mouth right



mother's breast. After a while when it fails to get milk it cries aloud, and when the mother puts it to her breast it ceases to cry and after suckling goes to comfortable sleep. But if the child cries from pain it does not cease to cry when put to the breast. It takes to the breast, but soon leaves off and cries. In such a case the mother should understand that the child is crying for pain ; possibly it has pain in the stomach or ear, or something may be pricking or some insect biting. Under this circumstance the child's clothes should be removed and its body carefully examined.

We feel it necessary to point out here that if the child cries for hunger or absence of the mother, it should be allowed to cry for a short duration. Crying is a sort of exercise for the child. It exercises the throat and lungs and widens the air passages which is very beneficial for the child. Besides, when crying it throws its arms and legs about so that thereby the muscles are exercised and grow stronger, the circulation of blood becomes more rapid and physical development is aided.

Child and Opium

The women in the villages are generally busy inside or outside the house in their work and with a view to attending to their work for a longer time they drug their children with opium. Opium is a poison for the child. Sometimes the child is put to sleep eternally by it and the mother becomes the murderess of her child. Even if the child is not killed by giving opium, it is habit-forming and has bad effects on the child's health. Therefore, opium should not be given to the children nor should any other narcotic be given.

Child's Nipple

Some women to prevent the child from crying put a nipple in its mouth. The nipple is made of rubber and is



filled with sugar syrup or honey. This practice is not good for the health of the child. The nipple drops to the ground from the mouth of the child, flies sit on it, and it is again given in the mouth of the child. In this manner germs causing disease find access to the child's body and it suffers from sore mouth, indigestion and diarrhoea. However at the time of teething,

when the child repeatedly puts its fingers in the mouth a nipple may be given without harm but cleanliness must be observed carefully and when it leaves the mouth it should not be put in again without cleaning. Some women hang a date fruit from the child's neck in a string. The child sucks the fruit. This is a very bad practice and should not be allowed at all. The date-fruit is quickly spoilt and the child falls ill by sucking it. Similarly, if an amulet is hung round its neck the child sucks it, and if no other thing is found the child sucks its thumb. All these are bad habits, and the child should be saved from them.

To Hold the Child in the Lap

Until the baby is six months old it should not be held in the lap but should be raised on both hands for amusing it or oneself. When lifting the child the hands should be placed under its armpits and then supporting the head, it should be held on the hands. When the child is able to sit it can be held in the arms or laid by the shoulders but care

should be taken not to jerk its neck or arms. Older children for love hold their little brother or sister in their arms, but



they do not exercise care in lifting or amusing them. They shake them about carelessly so that their collar-bone gets dislocated causing pain to the child. Special care should therefore be taken in this matter.

Hair and Nails of the Child

Generally six days after the birth the baby's head is shaved. This is good practice, but before shaving the razor and barber's hands should be well washed with warm water. Afterwards, when the child is older, its hair may be cut with a pair of scissors. In summer the hair may be shaved off. While bathing the head and hair of the child should be well washed. Sometimes lice are produced by uncleanness and due to accumulation of dirt pustules appear on the head.

The nails of the child must also be attended to. Enlarged nails cause trouble to the mother and sometimes the child wounds itself with them. Besides, dirt accumulates under them and when the child sucks its fingers, the dirt finds its way into its body and makes it ill. Therefore, intelligent women pare the nails of their children every week or fortnight.

Child's Exercise

Children or adults, all need exercise more or less. For infants, crying in bed and throwing their legs and arms about is sufficient exercise. Later on, when the child begins to crawl about on the ground or, when older, begins to walk or run about in the courtyard, it has exercise enough.



Walking

If the child is healthy and strong, it begins to sit when months old, crawl on knees when 8-10 months old, and to walk when one year old. It stands up, takes a few steps and falls. When it is one and a half years old, it can walk quite well. But it should be borne in mind that the child's bones are soft and tender, hence it should not be made to stand or walk forcibly. By doing so its legs will become crooked and unshapely.

When the child begins to crawl on the knees, it picks up whatever it can lay hands on and puts it into its mouth. Sometimes it chokes itself and its life is endangered. Or the child forms the habit of eating earth which makes it ill, or puts

stumps of cigarettes lying on the floor in its mouth or chews the match-sticks which it finds lying about. All these things are injurious to the child, and should not be allowed to lie about on the floor in a household consisting of children, and special care should be taken of the children. Sometimes the child picks up the knife or pair of scissors lying about and wounds itself with it. Such articles should also be stored away carefully.

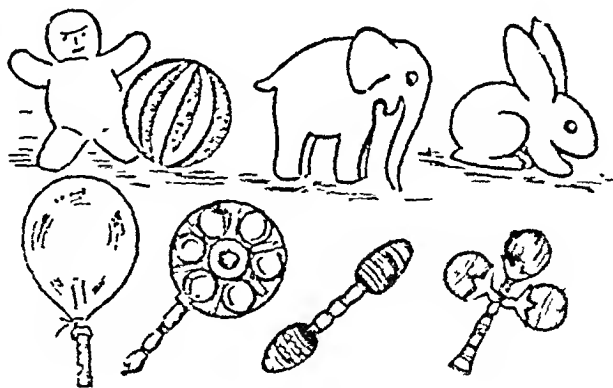


Toys

As the infant grows up it begins to interest itself in toys. An infant six months old stops crying when it hears the sound

of ringing toys, and listens attentively. Anyway, children enjoy play-things, and it has wholesome effect on their health. But it is the duty of the parents to

provide such toys as will not spoil their child's health if taken into the mouth, nor should they give such a small toy to the child as will choke it when taken in the r

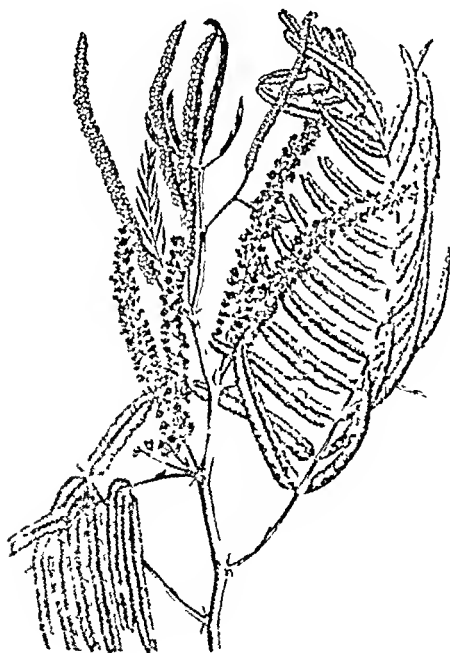


DRUGS AND SUBSTANCES COMMONLY FOUND IN VILLAGES

ACACIA CATECHU (Kattha)

Bot. Name : Acacia Catechu, Willd.

Other Names : *Bengali-Khaver, Kuth, Canarese-Kachu, Gujrati-Kher, Hindustani-Kattha, Malayalam-Kadaram, Marathi-Khaderi, Nepalese-Khair, Sanskrit-Khadyapatri, Tamil-Kadiram, Telugu-Kasu.*



Caoutchouc is the dried juice of kher tree. It is found as dark reddish pieces. Its taste is astringent but sweetish afterwards. Eaten in pan (betel-leaf) along with lime it imparts redness to the mouth.

It is constipating. In summer-diarrhoea or dysentery but not in case of scybala in the intestines), 3 mashas of powdered caoutchouc are steeped overnight in 5 tolas of water,

in the morning and drunk and similarly that steeped in the evening; diarrhoea or dysentery will

weights of caoutchouc, turmeric and sugar and one masha of the powder is taken each morning and in the evening, it relieves dry cough. Bits of caoutchouc and arecanut ground together and on the teeth strengthens loose teeth; if they gums are swollen, these conditions are also

of caoutchouc and 3 mashas of nitre (Shora powdered together and dusted in the mouth of the mouth and thrush.

inflammation of the uvula, caoutchouc is applied by means of a spoon to the uvula; the cough due to it is also relieved.

one tolas of caoutchouc dissolved in some water milk neutralizes the poison of arsenic.

ADHATODA (Aroosa)

Name : **Adhatoda Vasika, Nees.**

Names : Bengali-Adulsa, Gujrati-Aduraspee, Hindi-Bansa, Karnataki-Adusogae, Marathi-Adulsa, Marathi, Tamil-Adhatodai, Telugu-Addasaram. Unknown herb, and grows abundantly in most India and Pakistan. The plant grows to a height 10 ft. Several branches emerge from the root and its leaves resemble those of the mango to some extent softer and more tender. It bears white flowers which are sweetish. Bees suck their nectar and honey.

The herb has the property of healing diseases of the lungs, cough, asthma, tuberculosis and phthisis. It expels the phlegm and cleans the lungs. It is antiseptic and germicidal, and, therefore, is particularly useful in such diseases as whooping cough and phthisis. It prevents spitting of blood. It purifies the blood and prevents fever.

Seven leaves of this herb are boiled in water ($\frac{1}{4}$ seer) and strained and the decoction, mixed with 2 tolas of pure honey, is taken in cases of cough, asthma and phthisis. Fever is also prevented by it.

Half a seer of the juice of green leaves of Bansa are made into a syrup with sugar. This syrup is useful when licked three times daily, in the morning, afternoon, and evening, in cases of cough, asthma, and phthisis.

In case of cold of children, when there is fever and cough and rattling breath, the juice of the leaves of Bansa (one tola) mixed with some honey, warmed, and given to drink a few times relieves the condition.

In cases of fever and cough 5 mashas each of the root of Bansa and green gilo (*Tinospora Gordifolia*) and (75 grains) *Aulethi* (*Glycyrrhiza*) are boiled together, strained and mixed with honey (2 tolas) and given to drink. This is a very good prescription.

Confection of Bansa : A confection is also prepared from Bansa flowers. The process is as follows :

Bansa flowers are mixed with three times their weight of sugar and kneaded together, then placed in a jar and turned by means of a spoon every second or third day. When the flowers and sugar become homogenous the confection is ready. This confection is very useful in cough as well as cough due to tuberculosis of the lungs, and prevents spitting of blood.

Salt of Bansa is also prepared by burning it. This salt (1-2 ratti, 2-4 grains) mixed with honey or placed inside the betel-leaf and eaten relieves cough and asthma. The process

of preparing salt of Bansa is the same as given under the salt of Akh (*Calotropis Gigantea*).

AKASBEL (*Cassytha Filiformis*, Linn)

Bot. Name : Cassytha Filiformis, Linn.

Other Names : *Bengali-Akasbel, Gujrati-Akasbel, Hindustani-Amarbeli, Karnataki-Nindmulvali, Marathi-Amarvela, Sanskrit-Ashavalli, Telugu-Antaravallitige.*

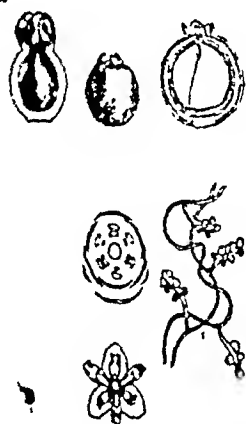
It is a parasitic herb. It spreads in the form of yellow lines on shrubs and acacia trees. It has no root but hangs in the air. Hence it is named akasbel, i.e. sky creeper.

Akasbel is useful in cases of paralysis and facial paralysis. It is boiled in water and the vapour allowed to play on the body and the residual solid is crushed and bandaged on the face and the water used to foment the back.

Akasbel kills intestinal worms. For this purpose it is boiled in water and given to drink. It purifies the blood also and is useful in case of chronic gonorrhoea. In case

of impurity of blood of all kinds seven mashas of each of akasbel and mundi is boiled in water and given to drink continuously for 15-20 days to purify the blood.

Akasbel and leaf-shoots of acacia are dried in the shade and equal parts by weight of the two powdered together and sifted. Six mashas of this powder taken daily the first thing in the morning along with



cough, asthma and rheumatism. It helps in the digestion of food and increases the appetite. One ratti of it is mixed with 6 mashas of pure honey and given to lick or placed inside a pan (prepared betel-leaf) and given to eat.

The method of preparation of salt of Akh :

The plant is cut and dried. Then it is burnt and the ashes collected. One seer of these ashes is stirred up with 8 seers of water and allowed to stand overnight stirring occasionally several times. In the morning the clear supernatant liquid is decanted, boiled in a clean pan till all the water has evaporated and a residue is left. This residue is the salt of Akh.

Oil of Akh—The leaves are burnt in sesame oil, cleaned and used for rubbing on painful parts in cases of rheumatism, lumbago, and sciatica.

AKOL (Sage-leaved Alangium)

Bot. Name : **Alangium Lamarckii, Thwaites.**

Other Names : *Bengali*—Akar-kanta, *Gujrati*—Onkla, *Hindustani*—Akola, *Marathi*—Ankol, *Sanskrit*—Ankola, *Telugu*—Ankolamu.

Akol trees grow in the hilly regions of Rajasthan, Sindh and Malwa. They reach a height of 30-40 feet. The twigs bear hard thorns, but the bigger branches are free from thorns. The bark of the trunk and branches is white and there are dirty elevations on them. The bark tastes somewhat bitter when chewed and causes nausea. The leaves resemble peach leaves but are not pointed like them. The fruit is smaller than jambolana fruit and when ripe looks like it, but its taste is insipid.

Akol is antidote to opium poison. If a person is poisoned

by opium or has taken an overdose of it, 6 mashes to one tola of the wood of this tree is ground in water and given to drink. The poison is neutralised. The inner heart-wood should be chosen for this purpose, which is dark red in colour.

Infantile tuberculosis (sookha, masan) is a common disease of children in which the children waste away and die. Akol is a useful and tried remedy for this disease. Akol wood is rubbed in water and given daily twice a day to the mother and the child for 2-3 weeks. The child recovers gradually.



ALUM

Alumen.

Other Names : *Bengali*-Phatkiri, *Gujrati*-Phatkari, *Hindustani*-Phitikhari, *Karnataki*-Phatikara, *Marathi*-Phatki, *Sanskrit*-Sphatikari, *Sindhi*-Shina-Karan, *Telugu*-Padikhararam.

Though cheap it is a very valuable drug. It is obtainable everywhere in villages as well as in towns. It prevents intermittent fevers, whether of quotidian, tertian or quartan. It should be ground fine and preserved in a phial. Two to four rattis of it are mixed with a little sugar and given 4 hours before the expected attack along with water, and another

if not kept off there will be a mild attack. Then it should be used the next day as well. If the bowels are constipated they should be cleared before.

Alum is also useful for cough; for this effect it is used in several ways. One way is as under: The branch of Thohar (*Euphorbia*) is hollowed and pieces of alum placed in it, then it is given a coating of clay and placed in the fire of dung cakes. When the clay is red hot it is taken out, broken open, and the alum extracted. This alum is ground to a fine powder and preserved. Two rattis of it placed inside a betel-leaf are taken daily. Whooping cough also is relieved by it. One or two rattis of it are mixed with honey and given to lick.

Alum stops diarrhoea and dysentery. Two tolas of alum and 3 mashas of opium are ground in a mortar and 4 rattis of this powder are taken along with water each time in the morning and in the evening.

If there is heaviness in the stomach in case of dysentery, the patient should be given 3 tolas of castor oil at first. This will produce motions of the bowels and eject solid lumps. Afterwards 4 rattis of this powder are given along with mucilage of *Isphagula*. After administering a few times dysentery will be cured and bloody stools also will be prevented.

Alum allays internal pain also. One masha of alum is ground fine and fried in 4 tolas of butterfat. Afterwards it is taken off the fire and allowed to settle. When the alum has settled down, the butterfat is decanted, 4 tolas of soojee are fried in it and made into halwa with 8 tolas of sugar. This halwa is eaten thus: the fried alum is placed inside a part of it and eaten first, and the rest of the halwa is eaten after it. For external application a mixture of jaggery, turmeric and lime should be painted. After using for a few days the pain, whether fresh or old, will be relieved.

Alum is unequalled as a remedy for gonorrhoea. Alum is roasted, mixed with an equal weight of geru (red ochre)

is dissolved in water and instilled into the nose or finely ground alum is blown into the nose.

Alum cures the wound in the ear, one masha of alum dissolved in water and used to wash the ear by means of syringe. Alum is finely powdered, mixed with honey and smeared on a wick of cotton and placed inside the ear.

A solution of alum used to wash the hair kills head lice,

If hands and feet sweat, 3 mashas of alum should be dissolved in one chhatank of water and painted on palms and soles, and sweating will stop. Also foul smell of the armpits is removed by such treatment.

In children suffering from prolapse of anus the solution just mentioned applied to the part relieves the condition.

AMMONIUM CHLORIDE (Naushadar)

Sal Ammoniac.

Other Names : *Bengali-Navasagara,*
Gujrati-Navsagar, Hindustani-Naushadar.
Naushadan, Marathi-Navsagar, Pun-
Janskrit-Navasara, Tamil-Navacharan
Navasaram.

Salmiac (Naushadar) is useful in several diseases of the liver and spleen. In case of enlargement of liver or spleen the use of salmaic relieves the swelling. It helps digestion and increases the appetite. It is also used in digestive powders. It is also useful in phlegmatic cough and asthma to expel phlegm.

Liquefied salmiac is used in these cases. If some pains have to be taken in order to get it prepared it can be used for a long time and for a large number of patients. The method is as follows.

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AMMONIUM CHLORIDE (Naushadar)


Sal Ammoniac.

Other Names : *Bengali-Navasagara,* *Nishadal,*
Gujrati-Navsagar, *Hindustani-Naushadar,* *Kashmiri-*
Naushadan, *Marathi-Navsagar,* *Punjabi-Noshadar,*
Sanskrit-Navasara, *Tamil-Navacharam,* *Telugu-*
Navasaram.

Salmiac (Naushadar) is useful in several diseases of the liver and spleen. In case of enlargement or oedema of the liver or spleen the use of salmaic relieves the conditions. It helps digestion and increases the appetite; therefore it is used in digestive powders. It is also given in cases of phlegmatic cough and asthma to expel phlegm.

Liquefied salmiac is used in these diseases. Although some pains have to be taken in order to prepare it, yet once prepared it can be used for a long time and benefit hundreds of patients. The method is as follows: Good slaked lime

(4 seers) is powdered finely and $\frac{1}{2}$ of it placed in an earthen vessel, slaked, $\frac{1}{4}$ seer of native Salmiac (in lump form) is placed over it and covered with the other $\frac{1}{2}$ of slaked lime, and the vessel is hermetically sealed. The vessel is then placed on fire, and the fire kept on for 12 hours, and then taken down and allowed to cool. When cold, it is opened and the salmiac is taken out and the lime is mixed with 10 seers of water and stirred repeatedly. After 24 hours the clear supernatant water is decanted and the salmiac dissolved in it, and boiled till all the water has evaporated and only white salt is left. This salt is placed in a China bowl and exposed overnight to the dew. The salt will be liquefied. This is liquefied Salmiac. Eight drops of it mixed with a little water is given in cases of enlargement of liver or spleen. It restores them to their normal condition.

The extract of salmiac is very useful in case of nebula, macula, or pterygium of the eyes. It is not difficult to prepare, nor costly, nor harmful. Once prepared it can be used for a long time. The method of preparation is as follows. One seer of salmiac is broken into small pieces and placed in an earthen vessel. The mouth of this vessel is closed by the mouth of another similar vessel inverted over it and securely hermetically sealed by means of some clay mixed with cotton-wool. (The two mouths should be made to fit together by grinding and the bottom of the vessel which is to contain the salmiac should be covered with a plaster of clay and dried so that it may not crack when placed on fire). The salmiac is heated in such a manner that the heat does not reach the upper vessel which is covered by a moist pad of cloth to keep it cool, and kept constantly moistened with water. The fire is kept on for 12 hours, then the vessels are gently taken down and allowed to cool. When quite cold, they are carefully taken apart and the yellow  white sublimate collected on the bottom of the

off. The residue in the lower vessel is thrown away, and in this vessel is placed the sublimate, sealed and heated as before to obtain a new sublimate. In this manner sublimation is repeated three times. The final sublimate is preserved in a well-stoppered bottle. It should never be left open.

This sublimate is very useful in several diseases of the liver, spleen and stomach, and also in cases of cough and asthma. Four rattis of this extract is mixed with a little honey given to lick.

In case of nebula and pterygium a little of this extract is placed in a bronze mortar and triturated with a pestle of zinc for 3 hours and placed in a phial. The end of a pencil is moistened with water and dipped in this phial and then applied to the eye for a few days.

ANISE (Saunf)

Bot. Name : Pimpinella Anisum, Linn.

Other Names : *Bengali*—Muhuri, *Mithi-jira*, *Hindustani*—aunf, *Karnataki*—Sapu, *Sanskrit*—Shatapushpa, *Tamil*—ombu, *Telugu*—Kuppi, *Sompu*.

It removes the weakness of the stomach and expels wind. It increases the flow of urine and milk. It is very useful for removing weakness of the eyesight. For this purpose it is eaten and also applied to the eyes in the form of collyrium stone triturated in its juice. It is also useful in case of fever due to disorder of the stomach.

Six mashas of it is first boiled in water and given to drink to a child suffering from flatulence and indigestion. Relief is obtained.

Equal quantities of aniseed and coriander are powdered and sifted and mixed with an equal quantity of brown sugar.

Nine mashas of it are taken after meals. If one feels heavy after a meal or a burning sensation in the hands and feet, its use proves very beneficial. If powdered aniseed is taken every morning in a dose of 6 mashas it strengthens the stomach and eyesight.

Aniseed is fried in ghee and powdered and some brown sugar mixed with it. Nine mashas of it taken each time in the morning and in the evening will stop diarrhoea. If with it is mixed an equal weight of pith of bael fruit it becomes more effective.

Pure collyrium stone (5 tolas) is triturated for a week in the juice of green aniseed and its leaves etc. When dry it is sifted and stored. It is applied every morning and night to the eye by means of pencil. It is useful in case of weakness of eyesight. If green aniseed is not available, a decoction of the drug may be used as a medium for trituration.

ARJUN (White Murdah)

Name : *Terminalia Arjuna*, W & A.

Names : *Bengali*-Arjun, *Gujrati*-Arjunsadada, *Kahu*, *Karnataki*-Toramatti, *Marathi*-Arjun, *Sanskrit*-Arjuna, *Tamil*-Vellai, *Telugu*-

Arjun trees grow some 80-100 ft. high, the trunk is straight in girth. When the tree has grown 40-50 ft high it is cut. The bark is greyish white, smooth and about $\frac{1}{2}$ inch thick. The leaves are 3-6 inches long and 1-2 inches broad. In the months of May and June small yellow flowers are produced and the fruit is 5-6 sided resembling Kamrak (Chinese gooseberry) fruit. The tree grows in almost all parts of Indian subcontinent, especially in U. P., Bihar, Orissa,

off. The residue in the lower vessel is thrown away, and in this vessel is placed the sublimate, sealed and heated as before to obtain a new sublimate. In this manner sublimation is repeated three times. The final sublimate is preserved in a well-stoppered bottle. It should never be left open.

This sublimate is very useful in several diseases of the liver, spleen and stomach, and also in cases of cough and asthma. Four rattis of this extract is mixed with a little honey given to lick.

In case of nebula and pterygium a little of this extract is placed in a bronze mortar and triturated with a pestle of zinc for 3 hours and placed in a phial. The end of a pencil is moistened with water and dipped in this phial and then applied to the eye for a few days.

ANISE (Saunf)

Bot. Name : Pimpinella Anisum, Linn.

er Names : *Bengali—Muhuri, Mithi-jira, Hindustani—, Karnataki—Sapu, Sanskrit—Shatapushpa, Tamil—nombu, Telugu—Kuppi, Sompū.*

It removes the weakness of the stomach and expels wind. It increases the flow of urine and milk. It is very useful for removing weakness of the eyesight. For this purpose it is eaten and also applied to the eyes in the form of collyrium stone triturated in its juice. It is also useful in case of fever due to disorder of the stomach.

Six mashas of it is first boiled in water and given to drink to a child suffering from flatulence and indigestion. Relief is obtained.

Equal quantities of aniseed and coriander are powdered and sifted and mixed with an equal quantity of brown sugar.

Nine mashas of it are taken after meals. If one feels heavy after a meal or a burning sensation in the hands and feet, its use proves very beneficial. If powdered aniseed is taken every morning in a dose of 6 mashas it strengthens the stomach and eyesight.

Aniseed is fried in ghee and powdered and some brown sugar mixed with it. Nine mashas of it taken each time in the morning and in the evening will stop diarrhoea. If with it is mixed an equal weight of pith of bael fruit it becomes more effective.

Pure collyrium stone (5 tolas) is triturated for a week in the juice of green aniseed and its leaves etc. When dry it is sifted and stored. It is applied every morning and night to the eye by means of pencil. It is useful in case of weakness of eyesight. If green aniseed is not available, a decoction of the dry stuff may be used as a medium for trituration.

ARJUN (White Murdah)

Bot. Name : *Terminalia Arjuna*, W & A.

Other Names : *Bengali*-Arjun, *Gujrati*-Arjunsadada, *Hindustani*-Kahu, *Karnataki*-Toramatti, *Marathi*-Arjun, *Pushtu*-Arjan, *Sanskrit*-Arjuna, *Tamil*-Vellai, *Telugu*-Maddi.

Arjun trees grow some 80-100 ft. high, the trunk is 10-20 ft in girth. When the tree has grown 40-50 ft high it branches. The bark is greyish white, smooth and about $\frac{1}{2}$ inch thick. The leaves are 3-6 inches long and 1-2 inches broad. In the months of May and June small yellow flowers are produced and the fruit is 5-6 sided resembling Kamrak (Chinese gooseberry) fruit. The tree grows in all parts of Indian subcontinent, especially in U. P.

use of some days the pain will soon be relieved and the broken bone healed also. The bark of Arjun ground with water and applied to the place of hurt removes the bluing, pain and swelling.

The bark of Arjun is also useful for wounds. A decoction of it is used to wash the wounds and powdered bark sprinkled after washing and bandaged. The wound heals rapidly.

In cases of diarrhoea and dysentery 6 mashas of the powdered bark is taken each time in the morning and evening along with cow's or goat's milk. Bleeding also stops.

In case of thrush or swelling of the gums, washing the mouth with a decoction of the bark of Arjun is helpful.

Six mashas of powdered bark of Arjun taken each time in the morning and in the evening along with milk relieves spermatorrhoea and increases sexual power.

ARSENIC (Sankhiya)

Arsenum.

Other Names : *Bengali*—Sumbulkhar, *Gujrati*—Somalkhar, *Hindustani*—Sankhya, *Karnataki*—Sankhya Pashana, *Marathi*—Sankhiya Sambala, *Sanskrit*—Sankhavisha, *Tamil*—Vella Pashanum, *Telugu*—Tela Pashanum.

Arsenic is poisonous: it kills a person in a dose of 1-2 mashas; but in therapeutic doses, if used with caution, it is life-saving. It is of several colours but generally white arsenic is used in medicine.

One tola of white arsenic is triturated in $1\frac{1}{2}$ seer of the juice of solanum xanthocarpum and made into pills of the size of mustard grain. One pill covered with cream of milk and taken daily preventing its contact with the mouth followed

by drinking milk and rich diet cures syphilis and syphilitic rheumatism if continued for 40 days.

One tola of arsenic is triturated in the juice of one hundred lemons and made into pills of the size of grain of gram. One pill covered with cream of milk and swallowed daily is useful in case of leprosy if continued for 40 days. Ghee and milk should be used as part of diet.

One tola of arsenic is powdered and boiled in ass's milk, cooled and allowed to stand. After 3 days it is taken out. A grain of this arsenic equal to a mustard grain is applied to the hæmorrhoids once in the day and once again in the night. If irritation is felt application is discontinued for a day or two, and when subsided, to begin again. By treating in this manner for 3-4 weeks hæmorrhoids dry up and fall off. During the course of treatment constipation is to be prevented and the parts washed with warm water.

White arsenic (4 rattis), rose petals (4 mashas), white catechu (4 tolas), all three are triturated in rose water for 3 days and made into pills of the size of grains of pepper. These pills are useful in case of malarial fever. One pill is to be taken one hour before the expected attack. If the attack is prevented the first day it will be prevented the next day.

Ghee of arsenic is prepared for use as aphrodisiac and a balm for pains due to rheumatism etc. The process is as follows :

Five tolas of arsenic is broken into small pieces and tied in bag of muslin and suspended in the middle of 10 seers of buffalo milk and boiled on moderate fire. The vessel is covered to prevent escape of steam. It is kept on fire in this manner for 12 hours, allowed to cool, the bag of arsenic removed and the milk churned to obtain the butter. The butter is then melted, cleaned and preserved in a phial. One ratti of this ghee is mixed with one quarter seer of milk and drunk and the ailing part rubbed with the ghee.

Arsenic is also used as an insecticide. Two and a half seer of arsenic is boiled along with $\frac{1}{2}$ a seer of crude soda (sajji) in 25 seers of water. When the Arsenic is dissolved the solution is stored in bottles. One tola of it is mixed with 2 seers of water and used for spraying plants or trees, and some of this is also poured on the roots. The insects infesting them will be killed and no insects will thrive on them further and no harm will be done to the vegetation.

If some arsenic is mixed with wheat-flour and made into pills and placed before the burrows of rats, the rats will eat them and will be killed. No water should be nearby. If the rats die inside the burrow they decompose there and give out bad smell which creates a nuisance; in the fields this can be used with advantage.

ASAFOETIDA (Heeng)

Bot. Name : *Ferula Assafoetida*, Linn.

Other Names : *Bengali*—Hingra, *Gujrati*—Hing, *Hindustani*—Hing, Hingra, *Karnataki*—Hingu, *Kashmiri*—Yang, *Marathi*—Hing, *Punjabi*—Hing, *Sanskrit*—Hingu, *Sindhi*—Vagharni, *Tamil*—Kayam, *Telugu*—Inguva.

Asafoetida is the resinous gum of a tree. Its colour is dirty yellow and the smell sharp and penetrating resembling that of garlic and onion. In most homes it is added while cooking to wind-forming substances like pulses of black gram etc. to counteract their wind forming property.

Asafoetida is used as a medicine in case of several diseases of the stomach and intestines. It increases appetite, helps digestion of food and expels wind. Therefore it is used as an ingredient of digestive powders.

In case of distension of the stomach due to wind, asafoe-

tida is dissolved in a little water, a wad of cotton-wool soaked in it and placed on the navel. Relief is obtained thereby.

If there is excruciating pain in the cardiac orifice of the stomach it is relieved in a short time by taking 2 rattis of asafotida with 1-2 draughts of water.

In case of worms infesting the tooth and giving pain the hollow of the tooth is filled with a little asafotida. Relief is thereby obtained.

Asafotida is also useful for counteracting the poison of opium. Administering the same quantity of asafotida as that of the ingested opium acts as an antidote to the poison.

A little asafotida dissolved in a few drops of water is applied to the ringworm. It is cured thereby.

Asafotida, roasted borax, rind of large myrobalans, of each one tola, Lahori salt, dried ginger, of each six mashas, all are finely ground together, sifted, moistened with limejuice and made into pills of the size of wild berries and preserved. These pills allay stomachache, increase the appetite and help the digestion of food. Distension of the stomach is also relieved by the use of them. When needed 1-2 pills are taken with warm water.

ASGAND (Winter Cherry)

Bot. Name : **Withania Somnifera, Dunal.**

Other Names : *Bengali—Aswagandha, Gujrati—Asundha, Hindustani—Asgandh, Karnataki—Asadu, Marathi—Asagandha, Pushtu—Kutilal, Sanskrit—Ashwagandha, Telugu—Asvagandhi.*

Asgand is also called oxon booti. The plant grows upto

BABCHI SEEDS

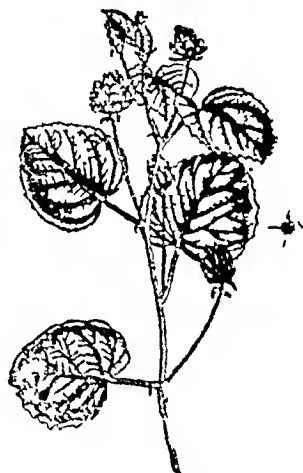
Bot. Name : Psoralea Corylifolia, Linn.

Other Names : *Benqali*—Bavachi, *Gujrati*—Babchi, *Hindustani*—Babchi, *Karnataki*—Bavanchi, *Marathi*—Bavanchi, *Sanskrit*—Vakuchi, *Tamil*—Karpokarishi, *Telugu*—Bavanchalu.

Babchi are the seeds of a herb. They are black, longish round and flattened like lentils and when shelled yield a white kernel which is bitter and pricks the tongue somewhat.

These seeds are laxative and anthelmintic. They are particularly used in case of leucoderma. They are applied externally on the white spots and administered internally as well.

The easiest way of using them in case of leucoderma is as given below : Babchi seeds are steeped for a week in the juice of ginger or the urine of a heifer, changing the liquid daily. Then they are rubbed with the hands, washed and the shell removed. This is now treated ("mudabbar") babchi. It is dried in the shade and one masha of it taken daily in the morning along with water. This should be continued for 40 days. Equal weights of babchi seeds and sulphur ("Gandhak amlasar") are finely ground along with tamarind seeds which have been steeped for 3-4 days in water, then shelled and crushed, and the mixture applied on the white spots. This application will give rise to itching ; if it becomes intolerable it should be discontinued, to be resumed after 2-3 days.



noon and evening) in the day. It is very useful in cases of diarrhoea of children.

The bark of Babool is also constipating. If gums are weak and bleed or teeth are loose, fresh bark should be chewed to strengthen them and stop bleeding. It is also given to stop diarrhoea, and sieved powder of it in cases of spermatorrhoea, premature ejaculation, and leucorrhoea.

In case of children suffering from prolapse of anus a decoction of the bark of Babool is used to wash the parts.

In leucorrhoea or prolapse of the uterus a decoction of its bark is used as a douche.

Tender pods of Babool in which seeds have not formed as yet are very useful in cases of spermatorrhoea, premature ejaculation, excessive nocturnal pollution and leucorrhoea.

These should be dried in the

shade, powdered, sieved and mixed with equal quantity of sugar. Nine mashas of it should be taken along with milk or fresh water every morning on empty stomach.

The charcoal of Babool wood (2 totals) ground to a fine powder, pepper (1 masha) also ground fine, and salt according to taste are mixed together and used as a dentifrice. The daily use of this dentifrice keeps the teeth clean and shining like pearls and removes bad smell of the mouth.

The gum of Babool removes dryness of throat and chest



and is useful in cases of cough, asthma, and phthisis. In case of dry cough a piece of the gum is placed in the mouth and the juice sucked. It is also used in dysentery. The gum of Babool fried in ghee and mixed with equal quantity of sugar taken every morning on empty stomach in 7 masha dose along with lukewarm milk relieves spermatorrhoea and leucorrhoea.

Sprouting leaves of Babool, bark, soft and tender beans of Babool, and its gum all four taken in equal quantities, powdered and strained and 6 mashas of it taken daily along with milk or water is useful in spermatorrhoea, in premature ejaculation, excessive nocturnal pollution and leucorrhoea.

Sprouting leaves of Babool prevent abortion. If bleeding sets in but the foetus is still sound in its place, sprouting leaves of Babool (2 tolas) should be boiled in $\frac{1}{2}$ a seer of water till only $\frac{1}{2}$ of it is left, strained, sweetened with sugar-candy and given to drink. After using for 2-3 days the bleeding will stop and abortion prevented.

BAEL

Bot. Name : Aegle Marmalos, Corr.

Other Names : *Bengali-Bela, Bael, Gujrati-Bilivaphal, Karnataki-Belapatre, Marathi-Baela, Sanskrit-Bilva, Sindhi-Bila, Tamil-Vilvapazham, Telugu-Maredu.*

Bael is a well-known fruit. The tree is large, the unripe fruit is green and on ripening becomes yellow. The pulp is yellow, sweet and smelling peculiar. The pulp from an unripe or half ripe fruit is dried and used in medicine by the name of belgiri.

Ripe fruit is nutritive, stimulant and tonic to the stomach,

intestines and liver. It is effective in stopping diarrhoea due to weakness of the stomach and intestines, and dysentery. Taken internally it strengthens the stomach and intestines, and produces well-formed stools and relieves chronic diarrhoea and dysentery.

In the hot season a drink is made from bael. The pulp of a ripe fruit mixed with water with or without sugar and drunk relieves thirst and heat and stops diarrhoea.

Some people use bael for stopping diarrhoea and dysentery in the following manner. Half-ripe fruit is given a coating of clay and placed in fire. When the clay is baked the fruit is taken out and the pulp eaten in the morning on an empty stomach in a dose of 2-3 tolas. After using for a few days continuously the condition is relieved. The pulp of the unripe fruit is more effective in stopping diarrhoea. Belgiri (3 mashes), white cumin and cardamom (of each one masha) ground in water, strained and given to children relieves the diarrhoea.

In case of sore eyes and exudation of pus leaves of bael tree are ground and painted.

BAINGAN (Egg Plant)

Bot. Name : Solanum Melongena, Linn.

Other Names : Bengali-Begun, Gujrati-Vengan, Hindustani-Baingan, Karnataki-Badanekayi, Kashmiri-Badanjanbosi-tani, Marathi-Wangi, Sanskrit-Vartaku, Sindhi-Wangan, Tamil-Katterikayi, Telugu-Vankaya.

It is a well-known vegetable. It is of several kinds. It is generally eaten as a vegetable cooked by itself or with meat. It has also some medicinal uses. It resolves swellings



or causes suppuration. It is specially useful in cases of whitlow. For this purpose it is burned in hot ashes, when it is cooked it is taken out, cut in the middle and tied on the ailing finger. If it is initial stage the swelling is resolved; if otherwise it suppurates and bursts. If pain is felt occasionally following a hurt, 5 tolas of the juice of baingan sweetened with one tola of



jaggery is given to drink for 8-10 days and the hurt ceases to give pain.

The hands and feet of some people sweat. They should apply juice of baingan or paint ground baingan to stop sweating.

BANJH (Kakora)

Other Names : *Bengali*-Titkankrol, *Gujrati*-Banjkhan-tulo, *Hindustani*-Banjh Kakora, *Karnataki*-Banjain-duaglu, *Marathi*-Bainjh-Kantoli, *Sanskrit*-Vindiyakartuki.

It is a climbing herb like kakora, grows in the rainy season, and spreads on neighbouring hedges. Its leaves resemble those of cucumber; it does not produce any fruit and therefore it is named banjh (=sterile) kakora; whereas kakora bears fruit resembling datura apple but smaller. The

root of Banjh Kakora is thick and viscid. It is an antidote against poisonous animals particularly snakes. One and a half tola (270 grains) of this root is ground in water, strained, and the extract given to drink. It causes vomiting and expulsion of the poison. If two or three rattis (4-6 grain) of tobacco leaf are ground along with it, its effect is enhanced. Sometimes the wound produced by the snake-bite does not heal; in such cases 5 tolas of root of Banjh kakora is added to 10 tolas of butter-fat and boiled till charred, then it is triturated till it forms an ointment. This ointment is applied to the wound. The wound heals quickly. If the bite is of an animal other than a snake, *e.g.* scorpion, weasel, rat, cat, or lizard etc., then the root of Banjh Kakora is ground with water and the paste applied to the wound. If the poison has affected the whole of the body then the root of Banjh Kakora should be ground as above with water, strained and given to drink. If worms infest a wound, the juice of leaves of Banjh Kakora is dropped into it to kill the worms and the ointment as made above applied to the wound heals it.

Banjh Kakora is also useful in ordinary cough. The juice of its leaves is pressed out, to $\frac{1}{4}$ seer (8 oz.) of this juice is added $\frac{1}{2}$ a seer (1 lb.) of sugar and cooked to form a syrup. One tola of this syrup each time may be licked 3 or 4 times in the day.

BANYAN TREE

Bot. Name : Ficus Bengalensis, Linn.

Other Names : *Bengali-Bat, Gujrati-Vor, Hindustani-Bor, Karnataki-Ahlada, Marathi-Vata-vraksha, Punjabi-Bohar, Pushto-Baagat, Sanskrit-Vata, Sindhi-Bur, Tamil-Ala, Telugu-Marichettu.*

It is a well-known tree. Its fibres hang down from its branches and take root in the ground and serve as a permanent prop. In this way the tree covers a large piece of ground. These fibres are called its beard. By breaking its leaves or piercing its branches a white thick milk exudes. Young leaves, beard and milk are used in medicine. Young leaves are constipating, stop diarrhoea, and are useful in cases of spermatorrhoea, premature ejaculation and thinness of seminal fluid. Young leaves are dried in the shade, powdered and sieved, mixed with equal quantity of sugar and nine mashas of it are taken every morning on empty stomach along with milk for seven days. By this treatment spermatorrhoea and nocturnal emissions are cured. Leucorrhoea of women is also cured in this way.

The milk of banyan tree (bar) is a very good medicine for treating thinness of seminal fluid. Eight drops of the milk obtained by breaking the leaves should be allowed to run into 3-4 mashas of sugar and eaten every morning on empty stomach and followed by drinking milk at least for 3 weeks to cure spermatorrhoea, premature ejaculation, thinness of seminal fluid and nocturnal emissions. The milk applied on swellings stops their growth, if applied in the beginning it reduces the swelling, otherwise it makes it suppurate and burst.

In winter the heels crack and cause pain; by filling the cracks with its milk they are healed.

If vomiting is not prevented by any treatment soft parts of the beard should be ground with water, strained and given to drink to stop vomiting.

The beard is burnt and the ashes steeped in water. The supernatant clear water is decanted and given to drink to stop vomiting.

BEANS (Sem)

Bot. Name : Phaseolus Multiflorus

Hindustani-Sem.



Sem is a well-known vegetable, the beans are cooked and eaten as food. It has the virtue of removing bad smell of the armpits. The leaves or beans are crushed and applied continuously for 8-10 days; the condition is relieved.

BEESWAX (Mom)

CERA.

Other Names : *Bengali-Mom, Gujrati-Mina, Hindustani-Mom, Karnataki-Maena, Kashmiri-Sinth, Marathi-Maena, Sanskrit-Madhuhan, Tamil-Mellugu, Telugu-Mainam.*

Beeswax is well-known. It is available everywhere. It is obtained from the hives of bees. Wax is used in most ointments along with some suitable oil. It helps in clearing and healing the wounds. Besides, it allays all kinds of pains, and resolves swellings.

One tola of wax is mixed with 3 tolas of sesame oil and boiled. In case of pain in the chest or ribs or any other part on account of cold or wind, it should be rubbed in lukewarm. If six mashas of finely powdered dry ginger is added to it, it becomes more effective. In case of pain in the breasts due

to congestion with milk or hurt beeswax made into a cake and applied to it for a few days relieves the pain and swelling.

Pills are made of beeswax of 4 rattis each and wrapped in silver leaf. One pill each time is taken in the morning and in the evening. It removes sexual debility, and some say haemorrhage from the piles is also stopped thereby. Dysentery or inner abscess or chronic diarrhoea is also cured by eating these pills.

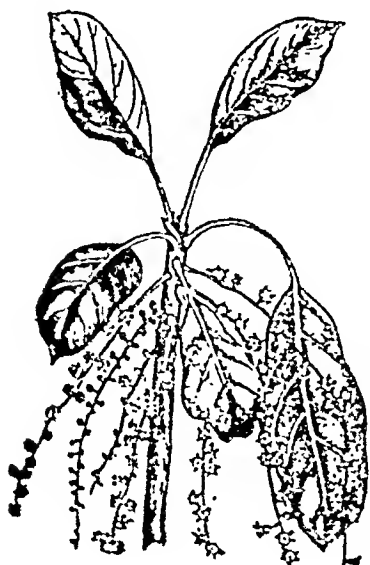
BELERIC MYROBALAN (Bahera)

Bot. Name : **Terminalia Belerica, Roxb.**

Other Names : *Bengali-Bohera, Gujrati-Berang, Hindustani-Bahera, Karnataki - Tari, Marathi - Bahera, Sanskrit-Vibhitaka, Tamil-Tani, Telugu-Tandi.*

Bahera is the fruit of a large tree; it is larger than a jeube, yellowish brown in colour and bitter. It strengthens

the stomach and intestines, stops the diarrhoea due to weakness of the stomach and intestines and produces well-formed stools. For this purpose bahera should be half roasted, powdered and 3 mashas of it taken each time in the morning and evening. Bahera stops excessive salivation. For this purpose six mashas of the sieved powder are taken at a time. Bahera is very useful for cough and asthma: for this purpose bahera is held in the mouth and the juice sucked and the pills of it made and taken.



The rind of bahera (2 tolas) and flowers of pistachio nut (one tola) are ground and sifted, kneaded in the juice of ginger and made into pills of 4 rattis each. One of these pills is held in the mouth and the juice sucked to relieve cough. In case of sore eyes in the hot season the rind is ground in water and painted round the eyes. Bahera strengthens eyesight and stops epiphora (watering of the eye). For this purpose the rind is powdered fine like collyrium and applied to the eye in the morning with a pencil.

BENGAL GRAM

Bot. Name : Cicer Arietinum, Linn.



Other Names :

Bengali-Chhola, Gujrati-Chana, Hindustani-Chana, Karnataki-Kadle, Marathi-Harbara, Sanskrit-Chanaka, Sindhi-Chahna, Telugu-Senagalu.

Chana is a well-known food grain. It is second to wheat in its nutritive value; bread is made from its flour and it is also cooked as a pulse. Flour made from the shelled grain is known as

"besan" which is used to prepare several kinds of ~~very~~ preparations. It has not only nutritive value but possesses medicinal value as well.

When 1-2 tolas of it are steeped overnight in 2-3 chin-tanks of water and eaten in the morning being thoroughly masticated and after it the water in which it was steeped sweetened with honey and drunk, it acts as a tonic.

"Besan" is steeped in water and the supernatant water given several times in the day to drink ~~alleviates~~ the burning sensation during urination, and if affected with gonorrhoea the urethra will be cleaned and the recovery hastened.

The shell of the grain is steeped overnight in water, and in the morning strained and drunk. It serves as a diuretic.

"Besan" mixed with turmeric, mustard oil and the requisite quantity of water is applied as a paste to clear the complexion and impart to it a peculiar attractiveness.

BETELNUT (Supari)

Bot. Name : Areca Catechu, Linn.

Other Names : Bengali-Supari, *Ceylon-Supari*, *Portuguese-Supari*, *Karnataki-Adike*, *Mandali-Supari*, *Tamil-Supari*, *Pooga-phalam*, *Telugu-Poka*.

Arecanut tree grows in Southern India ~~Ceylon and~~ Ceylon and Andaman Islands to a height of 30-40 feet. The leaves form a crown at top like ~~umbrella~~ *umbrella* and ~~under~~ *under* them clusters of round fruit form. The fruit is the arecanut.

Arecanut is generally cut to pieces and ~~used~~ *used* ~~as a~~ *as a* ~~drug~~ *drug*.

betel leaf. It counteracts lime and strengthens the teeth and gums. A dentifrice is made from it which is useful for strengthening the-gums and loose teeth. The nut is burnt to a coal ; to this coal 3 times of its weight of chalk is mixed, powdered finely and used as a dentifrice. It makes the teeth clean and bright.

Arecanut and large cardamom are burnt together and ground to a fine powder. This powder dusted into the mouth in cases of thrush cures it.



One tola of arecanut is cut to pieces, boiled in six chhatanks of water. When half of it is left, it is strained and given to drink. It stops diarrhoea due to the weakness of stomach and intestines. Arecanut is a tonic for the uterus and dries up its extra moisture. For this purpose it is often used in leucorrhoea and loss of tone of the uterus. Besides, it is also administered in cases of spermatorrhoea, premature ejaculation and tenuity of semen.

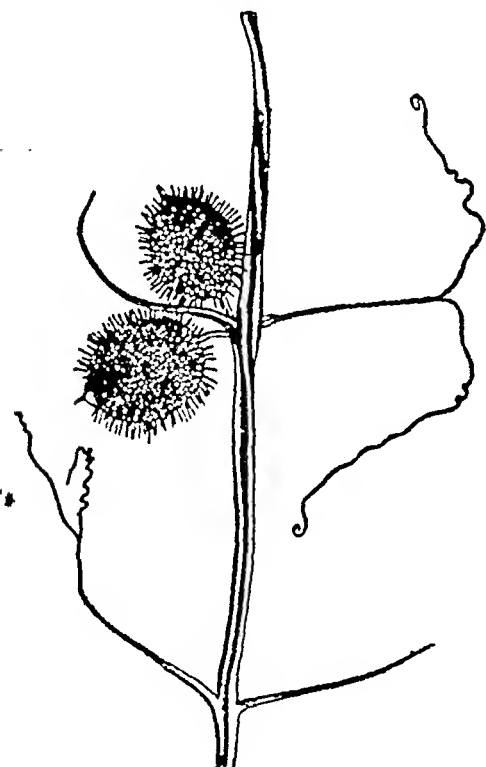
BINDAL (*Luffa Echinata*, Roxb.)

Bot. Name : **Luff Echinata**, Roxb.

Other Names : *Bengali*-Ghosalata, *Gujrati*-Deodangri, *Hindustani*-Bindal, *Marathi*-Kukadvel, *Punjabi*-Ghughharvel, *Sanskrit*-Koshlataki, *Sindhi*-Jangthori, *Tamil*-Panibira, *Telugu*-Panibira.

Bindal is the fruit of a climbing herb, also called Bindal-

doda. It is round and of the size of a pigeon's egg but light and hollow, has fine thorns on the surface. Its colour is light yellow, taste bitter. It grows wild in the forests during the rainy season.



Bindaldoda is purgative and emetic. It is used in cases of loss of smelling faculty, epilepsy, hemi-crania, jaundice and piles. It is taken internally or applied locally for inducing menstrual flow or ejecting living or dead foetus. If bindal is ground fine, strained, mixed with cow-butterfat and dropped in the nose it relieves congestion of the nose with loss of smelling faculty or its inflammation, epilepsy and hemicrania. If the

yellow colour of the eyes persists after an attack of jaundice, two or three bindaldodas are steeped overnight in a little water, strained in the morning and a few drops instilled in the nose. A yellow fluid will run from the nose and after using for a few days the eyes will clear.

A few bindaldodas are ground in water and made into a cake, smeared with a little butterfat and bandaged on piles. After a few day's treatment the piles will dry up. If the smoke from burning bindaladoda is allowed to play upon piles they soon dry up and fall off.

BISHOP'S WEED (Ajowan)

Bot. Name : **Ptychotis Ajowan, Dc.**

Other Names : *Bengali-Jowan, Gujrati-Ajamo, Hindustani-Ajowan, Karnataki-Undo, Kashmiri-Jawind, Marathi-Owa, Punjabi-Ajwani, Sanskrit-Yavanika, Tamil-Aman, Telugu-Omanu.*

Ajowan is also called native or 'desi' Ajowan. It is available in every village and town. It is the seed of a plant. It is very small, dark grey in colour, sharp and rather bitter in taste and having a strong smell. The plant resembles sowa plant (*anethum sowa*), the leaves of which resemble coriander leaves and the flowers are umbrella-like resembling the flowers of sowa.

Ajowan is useful in several diseases of the stomach, liver and intestines. It removes weakness of the liver, increases appetite, digests food, expels wind and relieves distension of the stomach due to flatulence and kills intestinal worms.



Five tolas of ajowan are steeped in the juice and dried. This is repeated 1 times. After this one tola of sonth (dried ginger) and one tola of black salt is mixed with it, finely powdered and sifted. Three mashas of this powder is taken at a time in the morning and in the evening along with warm water. It is taken after meals as a digestive.



In case of ear-ache ajowan is boiled in sesame oil and the oil dropped lukewarm in the ear. It relieves the pain. If there is a pustule in the

ear it also suppurates and bursts soon. In case of congestion due to catarrh and headache caused thereby, ajowan is tied in a bag and heated and smelt. Sneezing follows, the nose runs and relief is obtained.

Ajowan is also useful in case of whooping cough. One tola of ajowan and 3 mashas of black salt are finely ground together, mixed with $\frac{1}{4}$ tolas of pure honey and given to lick 3-4 times in the day.

Ajowan is very useful for chronic phlegmatic fevers. Sometimes light fever persists after malarial fevers. This fever is cured very soon by the use of ajowan. If along with it there is swelling of the stomach, liver, spleen or intestines it is relieved as well. The method of use is as follows : One tola of ajowan is steeped in the morning in water contained in a new earthenware goblet. In the day it is placed in the shade and in the night exposed to the dew. The next day the water is strained and drunk. In this way the water is drunk continuously for 8-10 days. This method of use is known as "Ajowan ath-pahri" among Hakeems.

Ajowan is also useful for expelling stones from the kidneys and the bladder. It is also useful for the sting of a scorpion. Ajowan is ground with water and applied to the place of the sting.

An essence is also prepared from ajowan, known as thymol in English. It has the same virtues as has ajowan, but is more speedily effective. Its dose is 1-2 rattis.

BITTER LUFFA (Karvi Tori)

Bot. Name : Luffa Amara.

Other Names : *Bengali-Jhinga, Canarese-Kahine, Gujarati-Jhum Khandan, Hindustani-Karvi Torai, Jhinani,*

Malayalam-Athanga, Marathi-Kadudodaka, Persian-Turai Talkh, Sanskrit-Tikatkoshataki, Tamil-Peyppirkam, Telugu-Chedubira.

Sweet gourd or ribbed luffa which is edible sometimes turns out bitter but what is described below is a different variety. The plant is a creeper like that of the edible variety and bears similar fruit but it grows wild and its leaves and fruit are all bitter.

Bitter gourd is purgative and emetic. In case of phlegmatic asthma bitter gourd is most useful. One fruit is boiled in goat's milk, pressed and strained and given to drink. It induces vomiting and the phlegm is totally expelled and relief is



obtained.

In case of jaundice, to remove the yellow colour of the eyes the kernel of the seeds is ground along with one fruit of Bandal in water and 2-3 drops of this liquid are dropped into the nostrils which causes the flow of a yellow liquid

from the nose and mouth and, after it, headache. The veins of the neck will swell and in the afternoon there will be high fever. After 12 hours' discomfort, jaundice will be cured.

If a person is bitten by a mad dog, the kernel of the seeds are ground in water, strained and given to drink. It induces diarrhoea and vomiting and expels the poison. For inducing vomiting 1-2 mashas of the kernel of the seeds of bitter gourd are swallowed or ground in water and drunk. Profuse vomiting will follow and the phlegm deposited in the chest will be expelled.

BLACK GRAM (Mash)

Bot. Name : Phaseolus Roxburghii.



Other Names :

Bengali Mash-Kulay, Gujrati-Arad, Hindustani-Urid, Karnataki-Uddu, Marathi-Udid, Punjabi-Mash, Sanskrit-Masha, Tamil-Paumippayare, Telugu-Minumulu.

Mash is coc as pulse (dal). wind - forming difficult to di but contains m protein and wha digested is very nutritious. It increases th formation of semina

matter and milk and acts as an aphrodisiac.

Three or four tolas of halved and shelled black gram is cooked in 6 chhatanks of milk till a paste is formed of it, sweetened with sugar and eaten. About ten day's use gives strength to women and increases the secretion of milk ; in case of men it increases the production of seminal fluid, removes debility and spermatorrhoea.

Some people prepare a halwa of it with the addition of some other drugs which besides being delicious is also invigorating. The method of preparation is as under : 2 chhatank of halved and shelled black gram is steeped overnight in milk so that all the milk is absorbed, then dried and powdered. Tamarind seeds are roasted, shelled and powdered. Moosli sufed (the root of senbhal tree) and pith of Indian water chestnut (Singhara), of each 5 tolas, dried ginger (2 tolas), are powdered. All of these are mixed together, sugar added and cooked into halwa, each day and eaten.

The whole grain of black gram stops hiccup. For this purpose it is smoked in a hookah in place of tobacco. A few draughts relieve the hiccup.

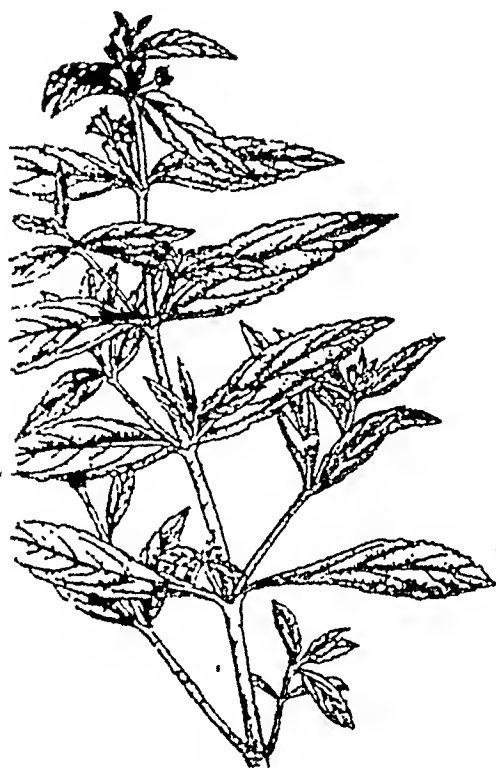
BLACK NIGHTSHADE (Mako)

Bot. Name : Solanum Nigrum.

Other Names : *Bengali - Gurkamai, Gujrati - Piludi, Hindustani - Mako, Karnataki - Kakmuchi, Marathi - Kamoni, Punjabi - Kachmach, Pushtu - Karozgi, Sanskrit - Kakamachi, Sindhi - Kanperun, Tamil - Manattakkali, Telugu - Kachi.*

Mako (black nightshade, Inbus-salib) is very well-known on account of its usefulness. It grows wild in the rainy season. It is available in every season. The herbists of Delhi cultivate it.

The plant is bushy and $\frac{1}{2}$ -1 yard high. There are numerous branches. The colour of the branches and the stem is bluish green, the flowers are small and white. The fruits grow in clusters and are of the size of pepper corns, their colour is dark green and taste bitter when unripe, but on ripening they become sweet and red.



Green and dry mako is unparalleled for resolving the inflammation of viscera, especially of the liver, stomach, spleen, intestines and uterus. The green

leaves are crushed, and the juice expressed from them, and placed on fire. When it boils, it is removed from fire, strained and given to drink. Oedema of the liver, stomach, intestines and uterus is relieved by drinking it for a few days. If a patient is suffering from jaundice due to oedema of the liver or gall-bladder, the juice of mako should be mixed with the juice of the leaves of radish prepared in the same way, and given to drink. The leaves of mako cooked as vegetable and eaten also resolve internal swellings, but because it is bitter it can be eaten by hardy patients only. In case of swelling of the tongue and throat the pith of fruit of Indian laburum (amaltas) is dissolved in the juice of mako, warmed and used as a mouth-wash. Quick relief is obtained.

BLUE VITRIOL (Ncela Thotha)

Cupric Sulphate

Other Names : *Bengali-Tutia, Gujrati-Mor-tutta, Hindustani-Nila-thotha, Karnataki-Mayiltuttu, Punjabi-Nila-thotha, Sanskrit-Nellatutia, Tamil-Mayil-tuttu, Telugu-Mayilu-tuttam.*

Blue vitriol is poisonous, but if used carefully in small quantity it is useful in several diseases.

The amount of Blue Vitriol required is roasted on an iron plate, and borax is also roasted similarly. The two are then mixed in equal quantities and finely powdered, moistened with a little water and made into pills of the size of millet grains. One or two of these pills rubbed in the mother's milk are given to a child suffering from infantile pneumonia. Vomiting and diarrhoea will set in and the child will be cured.

In case of aphthae in the mouth one ratti of Blue Vitriol is mixed with one tola of honey and applied to the mouth. Saliva should be allowed to flow out. By repeating a few times cure will be effected.

In case of granules in the eyelids they could be upturned and the granules touched with a crystal of Blue Vitriol, then washed with cold water. They will disappear.

To counteract the poison of opium, datura, and aconite etc. 2½ rattis of Blue Vitriol are administered orally in a little warm water. Vomiting and diarrhoea follows and the poison is eliminated.

Blue Vitriol is used in ointments for the purpose of cleaning and curing foul sores and ulcers.

BOLE ARMENIAC (Multani Matti)

It is a yellowish white, heavy, stratified earth, used by most women for washing hair. It cleans the hair and makes them soft and shining. Besides, it stops bleeding. In case of frequent bleeding of the nose, one tola of this earth is crushed, steeped overnight in water being exposed to the dew, and the supernatant clear water drunk in the morning, and the earthy sediment applied to the nose, forehead and the soft palate. After using for a few days bleeding will not recur. In case of hematuria, treatment with the Multani water gives relief. Multani is also useful for prickly heat. It is steeped in water and applied for a few days. Relief is thus obtained.

BOPHALI

Bophali is a spreading herb, its leaves are small and the pods resemble Nakhoona (sweet-cloves, *trifolium indicum*). If the leaves are chewed stickiness is produced.

Bophali is very useful in cases of spermatorrhoea, nocturnal emissions, premature ejaculation and leucorrhoea. It relieves pain of hurt. In the hot season the herb should be ground in water, strained, sweetened with sugar candy and drunk. In the cold season six mashas of the powdered herb should be taken along with milk. To relieve pain of hurt it should be ground with water and applied lukewarm and the hurt place warmed with a burning dung-cake.

wash the ear by means of a syringe. The ear is thus cleaned of pus etc. and heals quickly.

BOOKKAN [Logwood]

Bot. Name : *Hæmatoxylon Campechianum*, Linn.

Other Names : *Bengali-Bokkan. Hindustani-Bookkan-bootee, Telugu-Gabbi.*

Bookkan-bootee grows generally on river-banks; its leaves are longish, narrow at the stem, dentate, and thick on the sides. At each node grow violet flowers. If the leaf is chewed stickiness is produced and a smell of fish.

This herb is very useful for bloody piles. However profuse the bleeding, a few times suffice. The treatment is as follows: Bookkan bootee (1 tola), and pepper (five grains) are ground in water, strained and sweetened with sugar candy, and given to drink. It is also useful in gonorrhœa; one tola each time ground in water, strained and sweetened with sugar candy is taken in the morning and evening. Burning sensation during urination is relieved and pus stopped. Besides, when this herb is ground to a paste in water and painted like henna on palms and soles it relieves the burning sensation.

BRAHMIBOOTI

Bot. Name : *Herpestis Monniera*, H. B. K.

Other Names : *Bengali-Brihmi, Gujarti-Brahmi, Hindustani-Brahmbhi, Karnataki-Brahmi, Sanskrit-Brahmi, Tamil-Neerbrahmi, Tib*

BORAX (Sohaga)

Sodii Biboras.

Other Names : *Bengali-Sohaga, Gujrati-Takankhar, Hindustani-Sohaga, Karnataki-Biligara, Kashmiri-Vavut, Marathi-Kankankhar, Punjabi-Tinkar, Sanskrit-Tankana, Tamil-Venkaram, Telugu-Velligaram.*

Borax is a very useful drug ; it is digestive, carminative and expectorant, and therefore it is used in several disorders of the stomach, cough and asthma. If a child vomits milk and the smell of it is sour, and suffers from flatulence borax is used as a well-known household remedy. It is fried in an iron pan, dehydrated, finely powdered and preserved in a phial. When required one ratti of it is given to the child at a time to lick, repeating 2-3 times.

In case of otorrhoea the ear is cleaned with cottonwool, then a wick of cotton is smeared with honey, the above borax powder sprinkled over it and placed inside the ear ; it will heal quickly. If worms infest the ear some borax dissolved in vinegar and dropped into the ear kills them.

Fried borax (one tola) and glycerrhiza root (2 tolas) are finely powdered and mixed with 10 tolas of honey. Six mashas of this mixture licked at a time relieves phlegmatic cough and asthma.

Fried borax (one tola) and black mustard (3 tolas) are finely ground and one masha of this mixture taken at a time with water daily in the morning cures enlargement of the spleen and increases appetite.

Ringworm is cured by applying to it borax ground in the juice of lemon. Hemorrhoids dry up by the application of borax ground with water.

Three mashas of borax, 2 tolas of neem leaves and 2 tolas of honey are boiled in water, strained, and the liquid used to

wash the ear by means of a syringe. The ear is thus cleaned of pus etc. and heals quickly.

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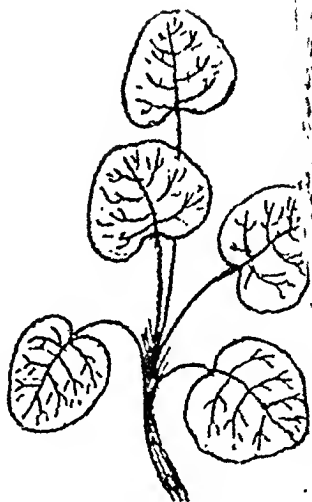
Other Names : *Bengali-Brihmi, Gujrati-Brahmi, Hindustani-Brambhi, Karnataki-Brahmi, Marathi-Nir-brami, Sanskrit-Brahmi, Tamil-Neerbrahmi, Telugu-Sambranichettu.*

It is a low spreading herb ; its leaves are of the size a silver 4-anna coin and resemble the footprints of a horse's hoof. Its taste is bitter and somewhat astringent. It grows generally by the sides of canals and rivulets.

Brahmibooti is used for strengthening the brain and improving the memory. There are different methods of using it. The easiest way of using it is to take one tola of the fresh herb, almond kernels (7 grains) and pepper (7 grains), grind them in water, strain and sweeten with sugar and drink it.

If fresh herb is not available six mashas of the dry herb will be sufficient.

In the winter season 5 tolas of the dry Brahmibooti and pepper (3 mashas) are ground together and mixed with equal quantity of sugar and six mashas of it taken every morning along with milk. It produces the same effect.



BRAHMDANDI

Bot. Name : Lamprachaenium Microcephalum, Benth.

Other Names : *Bengali-Chhangaldandi, Hindustani-Brahmdandi, Marathi-Brahamdandi, Sanskrit-Bramhadandi.*

This herb grows in the rainy season usually under bushes. It reaches a height of $\frac{1}{2}$ -1 yard ; its leaves and branches are bluish-green, its flower is bell-shaped, reddish blue. All its parts are intensely bitter.

This herb is highly valued as a purifier of blood. Be-

Besides, it cures loss of memory and strengthens the intellect.

It cures malarial fever and is a general tonic. If the green herb is available, one tola of it is ground along with seven grains of pepper in water, strained and taken for a few days. It brightens up the intellect and memory. If the body is itching or suffering from boils and pimples, psoriasis or ringworm etc. it cures these also.



To cure malarial fever brahmdandi is dried in the shade, powdered and sieved

and two mashas of it are given along with water to the patient, whose bowels have been previously cleaned by the use of a purgative, six hours before the expected time of attack of fever, and again after two hours and for the third time after another two hours. There will be no attack of fever, and if there is it will be a mild one. On using the medicine the next day it will be stopped altogether. Besides, dried brahmadandi (six mashas) and 5 grains of pepper may be ground in water, strained and given to drink. It also brings down the malarial fever.

BROWN MUSTARD (Rai)

Bot. Name : *Brassica Juncea*, Coss.

Other Names : Bengali-Raisarisha, Gujrati-Rai, Marathi-Rai, Karnataki-Sasire, Kashmiri-Naur, Marathi-Muhari, Sanskrit-Rajika, Telugu-Aralu.

These form small grains, reddish black in colour and pungent in taste. The plan is like that of mustard and the seeds resemble mustard seeds but are smaller. Oil is pressed from them.



It is very heating. If it is ground in water and applied to any part of the body it raises a blister. Therefore it is used in cases of pleurisy, pneumonia, rheumatism, stomachache, enlarged liver or spleen as mustard plaster. In cases of pleurisy and pneumonia a poultice of linseed is prepared, spread on a piece of cloth and six mashas of finely ground black mustard is sprinkled over it and applied lukewarm to the ailing part. When a burning sensation is felt it should be removed and, at once, a pad of warm cotton bandaged on the spot. The pain will be allayed.

In cases of ringworm, alopecia and leucoderma black mustard is ground in water and applied. A blister is raised thereby. Ghee is applied to the blister, and along with the cure of blister the complaint is cured.

If some secretion is deposited in the stomach it is expelled by drinking one tola of black mustard ground and mixed with hot water. If vomiting does not set in by itself tickling the throat with finger will induce vomiting. In case of enlarged spleen 3 tolas of black mustard and one tola of burnt borax are powdered together, sifted and one masha of it taken each time with water in the morning and in the evening. After using for a few days it becomes normal.

In case of pain due to dysmenorrhoea the patient should be made to sit in a bath of hot water containing finely

powdered mustard. The pain is allayed and menstrual flow sets in.

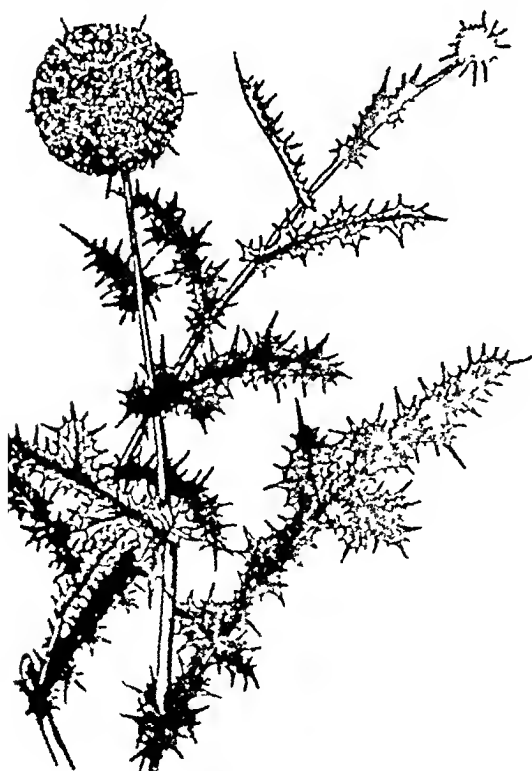
In case of loss of appetite and indigestion addition of as much of ground black mustard as will go between tips of two fingers to the curry makes the meal more easily digested and increases the appetite.

Application of the oil of black mustard is useful in cases of sciatica, podagra, pleurisy, lumbago and paralysis.

CAMEL'S THISTLE (Oontkatara)

Bot. Name : Echinops Echinatus, Dc.

Other Names : *Gujrati-Utkanto, Marathi-Utkatara, Sanskrit-Ushtrakanta.*



It is a thorny plant which grows 2-3 feet high. Its leaves resemble those of argemone mexicana but are a little longer and lighter green. The fruit is round and of the size of a walnut covered with long thorns. On ripening a white cotton like wool is found inside. () eagerly size this name

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many uses. One or two drops of the juice of the flowers introduced in the eyes relieves night-blindness, haze, nebula and macula.

It is also useful for cough and asthma. The bark of the root is powdered, sifted and mixed with honey. One or two masha of it is licked in such cases.

It is also useful for sexual debility. The easiest method of using it for this purpose is as follows: One tola of the root of Oontkatara is crushed, bound in a bag of clean cloth and boiled in a mixture of $\frac{1}{2}$ a seer of milk and $\frac{1}{2}$ a seer of water along with 5 date fruits. When the water has evaporated and only milk is left the bag is removed, the milk sweetened with sugar and drunk. The dates may also be eaten if liked.

Oontkatara is also useful for phlegmatic fevers and dropsy. The leaves and fruit of it (1 tola), along with pepper (7 grains) are boiled in water, strained and given to drink.

CAPER BERRY (Karer)

Bot. Name : Capparis Decidua.

Other Names : *Arabic-Margh, Sodab, Canarese-Karir, Gujarati-Kera, Hindustani-Karer, Karel, Marathi-Nevati, Persian-Berge Sodab, Punjabi-Karil, Sanskrit-Karira, Sindhi-Kiral, Tamil-Sengam, Sirakkali, Telugu-Kariramu.*

The plant is bushy—some plants grow to a height of 8-10 feet—its branches are thin and spreading around it. There are countless fine thorns on it. The leaves are small and scanty, as such the plant looks bare of leaves. The flowers are very beautiful red. It flowers in the months of May and June. Subsequently it bears round fruits ranging in size from that of the grain of Bengal gram to a plum, which are

green when unripe and red on ripening. The taste of ripe fruit is sweetish bitter. The fruits are called 'Tent'.

The unripe fruits are pickled. Its use relieves the discomfort due to phlegm and flatulence. It is useful in paralysis, facial paralysis and rheumatism. It resolves enlarged spleen, kills intestinal worms and cures many diseases of the stomach and intestines.

The leaf-shoots of Karer are ground without water and applied continuously for a few days to grow hair of the moustaches and beard. The bark of the trunk of Karer is powdered and one tola of it is taken every morning along with lukewarm water avoiding difficult to digest or constipating or fried food. This treatment is very effective in case of dropsy.

The charcoal of the wood of Karer is finely ground, mixed with honey and given to lick. It is useful in cases of phlegmatic cough, rheumatism and lumbago. The bark of the root of Karer is ground with water, warmed and applied to the ribs in case of pleurisy.

CARAVALLA (Hullum)

Bot. Name: *Gynandropsis Pentaphylla*, L.

Other Names : Bengali-Arkamul, Hindustani-Hullul, Gujarati-Satitalvani, Hindustani-Hullul, Kannada-Hullul, Marathi-Kanphodi, Sanskrit-Arkapushpika, Tamil-Hullul, Telugu-Vaminta.

This herb grows in the rainy season. The plant is 1-3 feet high. It generally bears yellow flowers, and pods which on drying yield fine seeds.

This herb is useful for chronic headache and migraine. The juice of the leaves is dropped into the nostrils and a paste of the seeds ground in water is applied to the forehead.

In case of a pustule in the ear when the patient is restless due to pain, the juice of hulhul leaves is dropped into the ear. The pustule is cured or it suppurates and bursts.

One tola of the leaves are ground with 21 grains of pepper and made into pills of 2 rattis each. One pill at a time is administered orally twice 4 hours before the expected time of attack of malarial fever. The attack will be warded off, if not, the same treatment the next time will surely confer immunity from the attack.

Hulhul is also useful for piles. The leaves are cooked as vegetable and eaten along with rice and the decoction of the leaves is at the same time used for washing the parts. Bleeding stops. Besides, the seeds are finely ground with twice their weight of brown sugar, and 3 mashas of it taken daily for 40 days cures the piles.

In case of intestinal worms its administration kills them and expels them. Three mashas each of the leaves of Hulhul and ajowan are ground together in water, strained, and given to drink in case of dropsy. It is cured thereby.

If a person is bitten by a mad dog, one tola of hulhul leaves, 3 cloves of garlic, and 3 grains of pepper are ground together in water, strained and given to drink for a few days. Relief is obtained thereby.

CARROTS

Bot. Name : Daucus Carota.

Other Names : *Arabic-Jazar, Bengali-Gagar, Canarese-Gajjari, Gujrati-Gajor, Hindutani-Gajar, Kashmiri-Bulmuj, Marathi-Gazara, Persian-Gazar, Punjabi-Gajar, Sanskrit-Gajara, Sindhi-Petaigagar, Tamil-Gajjarok, Kilangu, Telugu-Gajjaragedda,*

Carrots are well-known tubers which grow abundantly, are eaten raw, and cooked as vegetable or along with curries. Besides they are also used medicinally. They have sufficient nutritive value, they strengthen and fatten the body, and act also as a tonic to the heart and brain. They act as a diuretic and aphrodisiac. For these purposes they have been in use for centuries. Recent researches have now corroborated them. It has been found that they contain besides sugars, starches, iron, calcium, Phosphorous, Vitamins A, B and C. Therefore they are valuable for giving strength and nourishment to the body. They invigorate the brain, nerves, and the eyes and strengthen the bones. On account of their iron content they increase the formation of blood and are useful in cases of anaemia and scurvy. Because carrots are very useful and cheap poor people like them. In the villages people eat them and feed their cattle on them. The cattle become fat and strong by eating them. Milch cattle give more milk by feeding on them.

Raw carrots may be eaten after meals masticating well. It improves digestion and strengthens the gums, and nourishes the body. If they are cooked the water in which they are cooked should be absorbed in them, if it is thrown away the useful ingredients are lost.

Carrots besides being nutritive and invigorating are also very useful for palpitation of the heart and its weakness. Carrots are coated with clay and baked in an oven. When the clay is burnt, the carrots are taken out, cut open and the inner stone removed, and allowed to stand overnight in a plate. In the morning some rose-water, Bedmushk (willow water) and sugar is sprinkled on them and eaten. A few day's use will relieve heart trouble.

In case of general debility the juice of carrots taken along with milk gives strength to the body, brain, nerves and eyesight.

CASTOR OIL PLANT (Arand)

Bot. Name : *Ricinus Communis*, Linn.

Other Names : *Bengali-Aranda, Gujrati-Diveli, Hindustani-Endi, Karnataki-Erando, Marathi-Erand, Punjabi-Arand, Sanskrit-Erandra, Tamil-Amanakku, Telugu-Amidamu.*

It is a well-known tree, it does not grow to any great height. It has large leaves divided into 5 parts like a big palm of the hand. The fruits form clusters and bear a thorny husk. On removing the husk a spotted seed is obtained containing a white oily kernel. This is pressed to obtain the oil known as castor oil, and used as a purgative. The tree grows everywhere in India and Pakistan. Generally used in medicine are its leaves, kernel of the seeds, and castor-oil.

The leaves resolve swelling and allay pain. For this purpose the leaves are smeared with sesame oil or cooked like a vegetable and applied warm on the swollen part in cases of swelling of the neck or rheumatism.

The leaves also have antidotal properties against the poison of opium, aconite or snake. If a person has taken opium or aconite or has been bitten by a snake, the leaves are crushed, the juice expressed and 3-5 tolas of the juice given to drink. Vomiting and diarrhoea will follow and the poison will be expelled. If it does not help at first it should be repeated a second time. In case of snake-bite leaf-shoots should be ground and applied to the place of bite at the same time.

The leaves relieve hiccup. Dry leaves as much as required are smoked in place of tobacco in a pipe. The smoke should not be swallowed as far as possible. A few draughts will relieve the hiccup.

The kernel of castor-seeds, as a purgative, is more effective than castor oil. Ingestion of 4-5 kernels purges and cures such phlegmatic diseases as paralysis, rheumatism, facial

paralysis, cough and asthma.

Some experienced people say that the kernel of castor seed prevents conception. If a woman, following menstruation, swallows one kernel every morning on empty stomach for seven successive days she will not conceive.

Hand swellings are resolved by the application of kernel of castor seeds ground in water. If the muscles of the belly are hardened the kernels of castor seeds are ground in sheep's milk, cooked like a porridge and bound on the spot for a few days. The muscles are thereby softened. By applying it on the swollen testes, the swelling disappears also.

The kernel of castor seeds is ground in curdled milk (dahi) and allowed to stand till rotten. This, when applied for a week, cures scabies.

A halwa made from the kernels of castor seeds is useful in cases of paralysis, facial paralysis, rheumatism and asthma. Quarter seer of the kernel is boiled in one seer of milk till all the water has evaporated. The residue is fried with a little ghee for sometime then mixed with an equal weight of brown sugar. Two tolas of this halwa is taken daily. It acts as a laxative and cures the above mentioned diseases.

The root of the tree ground in water and applied relieves headache.

Castor-oil is a well-known purgative. It can be administered equally to children, adults or old people. Babies are given to lick 6 mashas of the oil mixed with 6 mashas of pure honey to relieve their constipation.

In case of scybalous dysentery administration of castor oil expels the scybala. Quick relief is thus obtained.

If lime were to enter the eye one or two drops of castor oil introduced into the eye give immediate relief.

CHALK (Khariya)

Chalk is white earth. In the villages people use it as a whitening for their houses in place of lime, and children use it as an ink on black board. But this chalk is not pure. Purified chalk is useful for several diseases. The method of purification is as follows: As much of the chalk as required is stirred up with clean water and allowed to stand for a few minutes. Stones and earth mixed with it will settle down, the supernatant milky fluid is separated, covered and allowed to stand. After a few hours chalk will settle down. The supernatant water is run off and the settled chalk is used.

Purified chalk (levigated chalk) used as a dentifrice keeps the teeth clean and shining white and bleeding, if any, is stopped.

This chalk when used for washing the hair cleans them of dirt.

One to one and a half mashas of purified chalk taken each time in the morning and evening stops bilious diarrhoea. If there are wounds in the intestines and bleeding takes place from them it is also stopped by its use.

If there is a scratch or fresh wound on the skin and it bleeds, purified chalk should be dusted on it and bandaged. Bleeding will stop and scab form on the wound quickly.

CHARCOAL

Charcoal is obtained by coaling wood, *i. e.* burning it and extinguishing the fire before reducing to ashes. Charcoal of acacia wood is considered to be good.

Charcoal makes a very good dentifrice for cleaning the teeth and making them white and shining. Five tolas of charcoal of acacia wood is ground along with a little salt and a

few grains of cloves and used to clean the teeth every morning. Besides keeping the teeth clean it will also remove bad smell from the mouth.

Very finely ground charcoal dusted on a wound stops bleeding. If the wound is old and foul a poultice of charcoal may be applied to it in the following manner : Two tolas of linseed finely ground and added, while stirring constantly by means of a spoon or knife, to 2 chhatanks of boiling water, little by little till it has formed a paste. This paste is taken, spread evenly on a piece of cloth or paper and finely ground charcoal sprinkled on it. The four corners of the cloth are turned inside and placed over the wound and tied. This makes the poultice of charcoal. By its use foul ulcers are cleaned and cured.

Mineral coal is also useful for such sores as are caused by burning. It is applied after grinding it in mustard oil. Besides, its application like this is also useful in case of oriental sore.

CHEBULIC MYROBALAN (Har)

Bot. Name : Terminalia Chebula, Retz.

Other Names : *Bengali-Haritaki, Gujrati-Pilo-Harde, Hindustani-Harda, Karnataki-Anilaykayi, Marathi-Hirada, Punjabi-Halela, Sanskrit-Haritaki, Sindhi-Har, Tamil-Kadukkay, Telugu-Haritaki.*

Chebolic myrobalans are the fruit of a large tree. These are of 3 kinds : (1) As long as stone has not formed in it, and it drops from the tree like young mango fruit, it assumes a black colour on drying. Then it is called small or black myrobalans. (2) When it is half-ripe and yellow and stone has formed in it, it is called "Halela zard" or large Har" (Yellow or large myrobalan). (3) When it is fully

ripe it is called "Kabuli Har".

Har is one of the most effective drugs. It strengthens the brain and the eyes, sharpens the intellect and memory, removes constipation and is tonic for the stomach and intestines. If it is used regularly for some time it prevents hair from turning grey before due time.

Three to five mashas of the rind of the fruit is finely ground, sifted, and mixed with a little salt according to taste. When administered orally it produces a thorough evacuation, improves eyesight and strengthens the brain, stomach, and intestines.

Large Har rubbed in water and applied to the eyes by means of a pencil is cooling and cleans the eyes. If eyes water, are red or affected with granules, it relieves these conditions as well.

Har, whether large or small, is useful in case of piles, is laxative and styptic. It is used in several ways.

CHHUIMUI (Sensitive Plant)

Bot. Name : Mimosa Pudica, Linn.

Other Names : *Bengali - Lajjabati, Gujrati - Lajalu, Hindustani - Lajalu, Karanataki - Nachikay-gida, Marathi - ajiri, Pushtu-Zhand, Sanskrit - Lajjalu, Telugu - Munugudamaramu.*

Chhuimui is a herb the leaves of which collapse on touch but recover their normal position after some time. On account of this property it is named chhuimui, i. e. dying on touch.

Chhuimui stops bleeding, whether the bleeding is from the piles or from the intestines, or from the lungs or womb. In every case 3 mashas of its powder taken each time

along with milk in the morning and evening stops bleeding. In the summer season green leaves of it (7 mashas) are ground in water along with seven grains of pepper, strained, sweetened with sugar and drunk for the same purpose.

In cases of plague and delirium due to high fever its use is very effective. Fresh plant is crushed and the juice expressed and given to drink in a dose of 3 tolas every three hours ; a few doses will prove effective and the patient will recover.

Stammering following an attack of plague or small-pox is cured by drinking for a few days six mashas of the plant ground in a little water and strained, in the morning and in the evening.

The seeds of chhuimui are powdered and sifted and 3 mashas of it are taken each time in the morning and evening along with milk in cases of spermatorrhoea and leucorrhoea.

CHILLIES

Bot. Name : *Capsicum Annuum*, Linn.

Other Names : *Bengali* - Lalmirichi, *Gujrati*-Marcha, *Hindustani* - Lalmirch, *Karnataki* - Kempu, *Kashmiri*-Mirch-wangum, *Marathi*-Mirchi, *Punjabi*-Mirch, *Sanskrit*-Katuviṛa, *Tamil*-Milagai, *Telugu*-Galakonda.

Chillies are available in every household at all times, and are generally used for giving a sharp taste to curries. They have also medicinal uses not generally known to which they can be profitably put in case of need.

In case a person is bitten by a dog the wound should at once be smeared with mustard oil and dressed with powdered chillies. The treatment neutralises the poison, even that of a mad dog to some extent.

Ear-ache and migraine are relieved by the following treatment. Seven chillies are boiled in 5 tolas of clarified butter (ghee) till charred, the ghee is then strained and preserved. Two to three drops of this ghee are dropped into the ear or rubbed in on the forehead as required.

In case of cholera, chillies are finely ground, sifted, mixed with honey and made into pills of one ratti each. When a patient suffering from cholera has cold body and weak pulse, two of these pills are given to swallow. By repeating 2-3 times recovery will follow.

Numbness is relieved by applying an ointment prepared by finely grinding one tola of chillies and mixing with $2\frac{1}{2}$ tolas of clarified butter (ghee), rubbing it in 2-3 times in the day. A few day's application will be helpful.

COCHINEAL INSECTS (Beerbahooti)

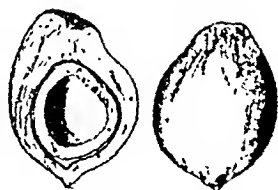
Coccus Cacti.

Other Names : *Gujrati*-Kiramaja, *Hindustani*-Beerbahooti, *Karnataki*-Kiramijee, *Telugu*-Kiramju.

It is a red-coloured insect, soft like velvet ; it contracts its legs on touch. It is found abundantly in the months of Asarh and Sawan (June and July). An oil is prepared from it which is rubbed in cases of paralysis, loss of tone and nervous debility. One tola of beerbahooti is cooked in 6 tolas of sesame oil, when nearly burnt it is removed from the fire, strained and filled in a phial.

Some Hakeems also use it for promoting appearance of small-pox pustules. About 3 mashas of rice are placed in a phial and 10-12 animals introduced into it, and corked. When the animals are dead and the rice red the rice is cleaned. One rice grain is given at a time three times daily along

6 mashas to one tola of cocoanut daily, the baby will be protected from the attack of small-pox. Cocoanut is very useful for the brain and the eyes. It strengthens the eyesight and the kidneys. For this purpose it is eaten along with sugar-candy.



Cocoanut also kills intestinal worms, particularly tape-worms. If cocoanut is mixed with an equal weight of kernel of palas papra, finely ground together, mixed with some jaggery and six mashas of it given to eat a few times, the worms will be killed and expelled.

Cocoanut oil is used as a substitute for ghee for edible purposes. It creates energy and heat in the body. When lukewarm cocoanut oil is rubbed in, it relieves pain, lengthens the hair and makes them soft and lustrous. The oil of fresh cocoanut is useful for whooping cough. To a one-year old child pure oil is given in a dose of 3 mashas three times daily for 10-12 days continuously. Cocoanut oil when drunk kills intestinal worms.

Cocoanut is finely ground, mixed with $\frac{1}{4}$ of its weight of turmeric, a bag made of it, warmed and used for fomentation of the site of hurt, and subsequently bandaged on the spot, and the pain and swelling is relieved.

The fibrous part of the cocoanut shell burnt to ashes, mixed with an equal weight of brown sugar and one tola of it swallowed daily for 3 days stops bleeding from the piles. It is also useful in case of excessive menstruation.

Cocoanut milk is nutritious and allays thirst. It may be given in febrile conditions. It relieves the agitation due to high fever immediately. It also kills intestinal worms.

COLOSTRUM

This is the viscous milky fluid produced by a cow or

2 seers of water. When $\frac{1}{4}$ of water is left, it is strained, mixed with $\frac{1}{2}$ a seer of castor oil and boiled again till all the water has evaporated and oil is left only. Then it is cleaned and placed in a phial. This oil mixed with cow's milk and drunk daily relieves syphilis and rheumatism.

COMMON INDIAN ALOES (Gheckwar)

Bot. Name : Aloe vera.

Other Names : *Arabic-Musabbar, Bengali-Ghirtakumari, Canarese-Brahmi, Gujrati-Kuvara, Hindustani-Gheckuvar, Malayalam-Gauvanna Kattala, Marathi-Kuvarpata, Persian-Darakhtesinn, Sanskrit-Grihakanya, Tamil-Veligam, Telugu-Musambaramu.*

Gheckwar is a well known herb. The leaves are thick and upto two feet long. On both edges of the leaves there are thorns and the leaves grow from the root all round so that the plant looks like a collection of leaves only. In the middle of the leaves there grows a branch bearing beautiful red flowers. On cutting a leaf some yellow sticky bitter fluid oozes which is called the mucilage of gheckwar.

The mucilaginous pith of the leaves of gheckwar is used in medicine. The pith gives strength to the body, stomach, and liver and purifies the blood, relieves constipation and is very useful for *asthma*, chronic cough and lumbago. For this purpose halwa or electuary is prepared from it.

Gheckwar resolves swellings, especially it is useful for resolving the swelling of the glands between the thighs and in the armpits. A leaf of gheckwar is scraped on one side and some turmeric sprinkled on it, warmed and bandaged. After repeating a few times relief will ensue.

A piece of Gheckwar 2 inches square is

Salt induces vomiting. If food fould in the stomach and it is desired to expel it, $1\frac{1}{4}$ tola of salt is dissolved in a glass of warm water and drunk. Vomiting is induced and the food expelled from the stomach.

To remove the debility during convalescence from illness, bathing in warm water to which salt has been added proves invigorating.

In case of cold and catarrh drinking warm salted water hastens recovery. Besides, persons afflicted with chronic catarrh are benefitted by gargling daily with salt water and irrigating the nose with it.

In case of enlarged uvula, gargling with cold salt water gives relief. In case of hoarseness due to cold, gargling with warm salt water is helpful.

Lahori salt finely ground and applied to the eyes by means of a pencil clears nebula, macula or haziness of the eyes.

COMMON MILK HEDGE (Thuhar)

Bot. Name : Euphorbia Neriipholia, Linn.

Other Names : *Bengali-Mansasijh, Gujrati-Thor, Hindustani-Thuhar, Karnataki-Ibaikalli, Marathi-Nevagunda, Sanskrit-Snuhi, Sindhi-Nivadunga, Thohur, Telugu-Akujemudu.*

It is a thorny plant, used as a hedge around gardens and fields. There are sharp thorns on its stem and branches and the leaves are like the tongue of the dog. When a leaf or is broken or an incision made in the trunk, milky fluid out. There are several kinds of it. Usually what is meant by 'Danda Thuhar', the stem and branches of which

patient should live in lighted rooms.

Oil is also prepared from Thuhar which is very useful for rheumatism and paralysis. The method of its preparation is as follows: Thuhar leaves are charred in sesame oil, the oil cleaned and preserved in a phial, and rubbed in when required. Another method, besides this, is as under: tender twigs of Thuhar are buried in hot ashes, when softened they are taken out and crushed and the juice expressed from them. The juice is then mixed with an equal weight of sesame oil, cooked till water has evaporated and only oil is left, and preserved in a phial.

For tooth-ache a drop of Thuhar milk applied carefully to it relieves the ache and the tooth can be easily extracted.

Thuhar milk when applied to ringworm or psoriasis quickly cures them. Besides, an ointment is also prepared from Thuhar for this purpose in the following: The pith of "Danda Thuhar ($\frac{1}{2}$ a seer) is charred in an equal weight of oil, beeswax (2 tolas) melted in it and blue vitriol (one tola) mixed and made into an ointment by triturating it thoroughly.

CORIANDER

Bot. Name : Coriandrum Sativum, Linn.

Other Names : *Bengali-Dhani, Gujrati-Dhana, Hindustani - Dhania, Karnataki - Kotambari, Marathi - Dhanya, Sanskrit - Dhancyoka, Sindhi - Dhano, Tamil-Kottamalli, Telugu-Kotimiri.*

Dhania is an ingredient of the spices used in curries; it imparts to them a pleasant smell. Besides, it strengthens the stomach and expels wind, and prevents winds from rising to the brain. It has many other virtues. It is useful in case of headache due to heat; ground

with water and applied as a paste to the forehead it relieves the pain. The juices of green dhania leaves and cucumber and some vinegar are mixed and placed in a phial. This phial is placed open before the nose of a patient suffering from high fever with delirium is useful.



In case of vertigo, nine mashas each of dry dhania and dry embelic myrobalans are powdered coarsely, and steeped overnight in water. In the morning the water is strained, sweetened with sugar-candy and drunk.

Five to six mashas of dhania chewed after meals strengthens digestion and is also helpful in stopping diarrhoea due to weakness of stomach. Bloody stools are stopped by drinking one tola of dhania ground in water and strained. If winds arise from the stomach and cause headache or vertigo, 9 mashas of a mixture of powdered and sifted dhania with an equal weight of sugar should be taken to relieve the condition.

If a person is weak and suffering from diarrhoea due to ingestion of croton seeds, six mashas of powdered and sifted dhania should be mixed with 2 chhatanks of homogenized curdled milk (Dahi) and given to drink. After drinking 2-3 times diarrhoea will stop and the patient will recover.

Excessive nocturnal pollution and sexual desire are also moderated by its use. One tola of dhania should be steeped overnight in water, strained in the morning and drunk.

milk, strained, boiled and sweetened with sugar and taken for 3 weeks daily will produce noticeable improvement.

The pith of cottonseed is useful in the initial stages of diabetes. One tola of the pith is powdered, steeped overnight, pressed, strained and drunk in the morning.

The pith of cottonseed is the antidote of opium, it is unparalleled as such, and proves life-saving in dangerous cases. In the villages cases frequently occur when ignorant mothers give an overdose of opium to their children in order to put them to sleep while engaged in their work and the child is put to sleep for ever. In such cases as soon as symptoms of poisoning appear one masha of pith of cottonseed should be ground in water, strained and given to drink. By repeating once or twice the symptoms will disappear, and by continuing further for 2-3 days complete recovery will result.

When an adult has been poisoned by opium, 3 tolas of the pith is ground in water, strained and given to drink, the poison will be neutralized. If some after-effect is felt it will pass off in a few days by continuing the use of pith.

Cotton plant is also an antidote of datura poison. If datura leaves have been ingested, leaves and seeds of cotton plant are ground in water, strained and given to drink, and the poison is neutralized.

If a cut or hurt bleeds and the bleeding does not stop, a piece of cotton wool or cotton cloth is burnt and the ashes applied to the bleeding part stops bleeding and quickly heals the wound.

COTTONSEED (Binaula)

Bot. Name . Gossypium Indicum, Lam.

Other Names : *Bengali-Karpas, Gujrati-Vona, Roi, Hindustani - Kapas, Karnataki - Hatti, Marathi - Kapus,*

Sanskrit-Karpas, Sindhi-Vaum, Tamil-Paruthi, Telugu-Patti.

Binaula is the seed of the cotton plant. It is found in almost every home in the villages and is given to milch cattle as fodder and increases their milk. Binaula also strengthens human body and enhances virility. Continual use fattens the body and increases women's milk. Extraordinary results are obtained with its use by persons suffering from cough or asthma and general debility. The method of use is as under: Two tolas of the kernel of the seed is ground with water or better with milk cooked and sweetened with sugar and drunk. In the hot season, binaula, dhanian (coriander) and white poppy seeds, all three are taken in equal quantities, ground fine and mixed with equal weight of sugar-candy and taken along with milk every morning. It is useful in cases of giddiness and bodily weakness.

Binaula is also an antidote against opium and datura poisoning. Three tolas of the kernel of cottonseed should be ground in water, strained and given to drink.

COUNTRY MALLOW (Kanghi booti)

Bot. Name : Abutilon Indicum.

Other Names : *Arabic-Mashtul-Ghola, Bengali-Potari, Canarese-Hettukisu, Gujrati-Dabali, Hindustani-Kanghi, Malayalam-Velluram, Marathi-Kansuli, Persian-Darakhte-Shanah, Sanskrit-Atibala, Sindhi-Khapato, Tamil-Nallatutti, Telugu-Tutti.*

Kanghi plant is 1-1½ yard high, its leaves resemble those of the mulberry tree. Its flowers are yellow and round, toothed like a comb. This figure is due to a few pods of it growing together in a particular order. Each pod contains a small flattened black seed.

and stored. Three mashas of the powder taken after a meal helps in the digestion of the food, expels winds and produces appetite. Its use also relieves nausea and vomiting of pregnancy.

In case of insufficiency of milk production by the milk glands of a woman, white cumin ground to a powder, mixed with equal quantity of sugar, and one tola taken at a time along with milk in the morning and in the evening increases the secretion of milk.

DATURA SEEDS

Bot. Name : Datura Alba, Nees.

Other Names : *Bengali-Dhutura, Gujarati-Dhatoria, Hindustani-Dhatura, Karnataki-Ummattay, Kashmiri-Dattin, Marathi-Dhotari, Sanskrit-Dhustoor, Sindhi-Atara, Telugu-Dhaturam.*

Datura plant resembles brinjal plant but is longer; it is of two varieties, white and black. The flower is like a funnel. The flower of the black variety is light blue and the branches are also light blue and it is preferred. Whether white or black, both varieties bear thorny fruit of the size of a small ball. On drying the white variety yields seeds of brown colour and the black variety of black colour.

Datura seeds are useful in cases of chronic cold and catarrh. They are used in various ways. One of them is as follows: One chhatank of datura seeds is boiled in $\frac{1}{2}$ a seer of water, when one third of it is left it is strained. Now large munaqqas (dried grapes), one chhatank are placed in this water and boiled on slow fire till all the water has evaporated. The munaqqas are then dried in the sun and preserved. Half a munaqqa is taken daily and used regularly for some time. Relief is obtained.

DHAK (Bastard Teak)

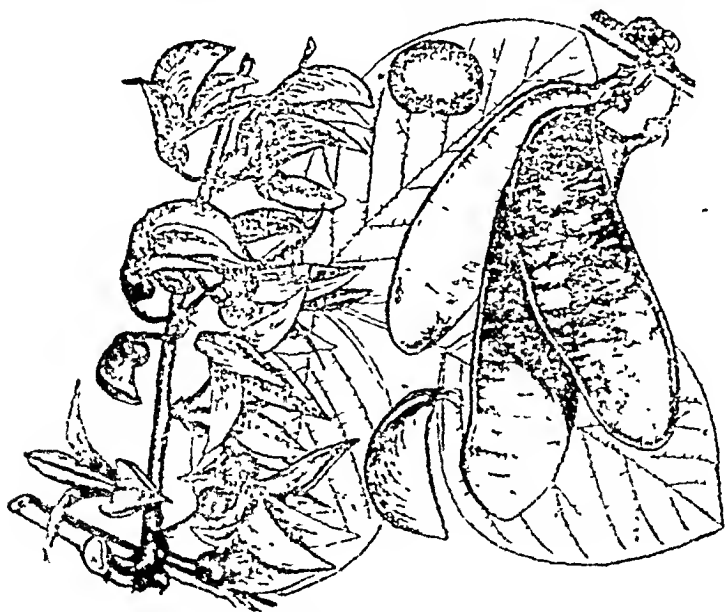
Bot. Name : **Butea Frondosa, Rexb.**

Other Names : *Bengali-Palas, Gujrati-Khakara, Hindustani-Palas, Tesu, Karnataki-Muttuga, Muttala, Marathi-Palas, Sanskrit-Palasha, Tamil-Palsam, Telugu-Modoga.*

Dhak, also called palas, and the flowers named tesu, bears about $\frac{1}{2}$ a foot long and one inch broad beans carrying 4-5 seeds. The beans are named palas papra. It yields a red ruby coloured gum which is known as "chunya gum" and "kamarkas".

It is a very useful plant. The wood is used as firewood, the leaves are made into plates and bowls to serve eatables on. The flowers, gum, and seeds and bark are used in medicines.

Leafshoots, gum, and bark of dhak are used in spermatorrhoea, tenuity of semen, premature ejaculation and leucorrhoea. The leafshoots which have not yet opened are



¶ dried in the shade, powdered, sifted and mixed with equal

weight of sugar. Six mashas of this powder taken every morning with milk or water for a fortnight continuously relieves the above-mentioned complaints.

The bark of the root of dhak (one seer) is boiled in five seers of water till two seers of it is left, then strained and sathi rice (one seer) steeped in it. When the water has dried up the rice is ground to a meal. Five tolas of this meal are, every day, fried in ghee and, by adding sugar, made into a halwa. This halwa when eaten is useful for spermatorrhoea, premature ejaculation, tenuity of semen, and leucorrhoea.

The gum of dhak (chunya gond) is a very good remedy in cases of spermatorrhoea, premature ejaculation, tenuity of semen and leucorrhoea, and is used frequently in medicines for them. Two tolas of the gum, talc, 2 tolas, small *mayecn*, six mashas all are ground fine, sifted and mixed with 2 tolas of sugar-candy. Six mashas of this are taken each time in the morning and in the evening. It cures leucorrhoea and excessive menstrual flow.

The flowers of dhak, called Tesu, resolve swellings and allay pain. In case of swelling and pain of the testicles, they are fomented with a decoction of the flowers and the same flowers crushed and bandaged lukewarm on them. If *post khashkhash* is added to the flowers the treatment becomes more effective.

The seeds, called tukhm palas-papra, are specially useful in quartan fevers and malarial fevers. The red coating is removed and an equal quantity of kernel of karanjwa (Indian beech) seeds is mixed with the kernel and ground to a fine powder, sifted, and kneaded with water and made into pills of the size of a grain of Bengal gram. Four hours before the expected attack of fever one pill is given along with water every 2 hours.

By the application of a paste made by grinding the seeds in water ringworm is cured.

DEEKAMALI (Cambi Resin)

Bot. Name : **Gardenia Gummifera, Linn.**

Other Names : *Bengali-Dikamali, Gujrati-Dikamali, Hindustani-Dikamali, Karnataki-Dikamalia, Marathi-Dikamali, Sanskrit-Nadi-hingu, Telugu-Karinga.*

There grows wild in Satpura hills and the Deccan a tree called "Chatmat". On its branches a greenish yellow exudate collects and solidifies. This is the gum of this tree and is called "Deekamali". In the northern parts this gum is found at grocers'.

Deekamali is very useful for wounds. It is antiseptic and healing. Worms infesting an old wound are killed by washing with a decoction of it, and an ointment made from it applied to the wound heals it.

Deekamali ointment : Googal, soap, black mustard, mayeen small, deekamali, of each one tola, white beeswax, 2 tolas, sesame oil, 10 tolas are taken. Wax is first melted in the oil, afterwards googal, soap, and deekamali are added, fire being kept moderate. When these are melted and mixed, finely ground black mustard and mayeen are incorporated to prepare the ointment. When required some of this ointment is smeared on a piece of cloth and applied to the sore. The application is changed daily.

Deekamali is also useful in case of Guinea worm. Two rattis to one masha should be administered orally every day along with water.

One or two mashas of deekamali and 6 mashas of bansa leaves are boiled together in water and given to drink to relieve dry cough.

One masha of deekamali, boiled in water and given to drink kills intestinal worms. Some of it is mixed with water and a wick of cotton dipped in it and

DRIED GINGER (Sonth)

Bot. Name : Zingiber officinale, Roscoe

Other Names : *Bengali-Sonth, Gujrati-Adu, Hindustani-Sonth, Karnataki-Vona-Shunti, Kashmiri-Sho-ont, Marathi-Sunt, Punjabi-Sonth, Sanskrit-Sunta, Tamil-Shukhu, Telugu-Sonti.*

Sonth is a well-known article. It is prepared by drying ginger in a particular way. It helps the digestion of food, expels wind from the belly, and increases appetite, intellect, memory and sexual power. It removes pain due to rheumatism and lumbago.

Five tolas of sonth and black salt (one tola) are finely ground together, moistened with lime juice and dried; moistening and drying being repeated three times, and stored. One masha of it taken after meals helps digestion of food, relieves stomachache and flatulence. Appetite also recovers thereby.

In case of loss of memory and forgetfulness (amnesia) 5 tolas of dried ginger are finely ground and mixed with 15 tolas of pure honey. Three mashas of it are taken each time in the morning and in the evening daily. It should be used in this way for relieving lumbago and sexual weakness. For external use sonth is powdered, mixed with sesame oil, and rubbed in, to relieve pain. If there is pain in any part due to cold internal and external use according to the above procedure relieves it.

In the severity of cold weather protect its effects by the use of sonth. Two tolas mixed with ten tolas of jaggery. The

obtained from
powdered as

disease.

The white of the egg applied to burns relieves the pain at once. Plaster of the yolk of egg is useful in case of pain in the kidneys. The yolk of an egg contained in a copper plate is placed on fire and mixed with 3-4 mashas of powdered turmeric, pasted on a piece of cloth and applied to the painful spot.

Albumin-water, i.e. white of the egg dissolved in water, is very useful for children in case of diarrhoea and dysentery. It is very easily digested and is nutritious besides being curative. The white of a raw egg is whipped thoroughly and then 6 chhatanks of cold water (which has been previously boiled and cooled) is placed in a bottle, the whipped egg-white added and well shaken. A homogeneous mixture will result. Salt or sugar may be added according to taste and small quantities given to the child at a time.

In case of whitlow when the joints of the fingers are swollen and the patient is restless from pain, egg proves very useful. An egg is broken, the white removed and the yolk only left in place. The swollen finger is placed inside the egg and lanced. This treatment is repeated morning and evening and after a few turns the swelling will be resolved or suppurate and burst.

The freckles and blemishes on the face are removed by the application of fried yolk of egg mixed with honey.

EMBLIC MYROBALAN (Amla or Aunla)

Bot. Name : Emblica Officinalis

Other Names : *Bengali-Amla, Grjra
tani-Aonla, Karnataki-Nelli, Kahrir
Anvala, Pushtu-Aoula, Sanskrit-Ama
Telugu-Usrikayi.*

and prevalence of sanguine and bilious humours, 5 tolas of dried amla are steeped in water in a new earthen jar, and this water drunk in case of thirst. It will allay thirst. In the hot weather some babies suffer from diarrhoea and excessive thirst. They should also be given water in which amla is steeped as a remedy.

Amla also stops bleeding from the nose. If the nose bleeds frequently and no measures succeed in stopping it, amla water given to drink as above and amla ground in water and applied to soft palate, forehead and nose will stop it. This cheap treatment will surpass the most expensive measures.

Not only is the bleeding from the nose stopped by it, but passing bloody urine (haematuria) or stools is also cured by giving to drink one tola of amla ground in water and mixed with sugar-candy or sugar.

In order to stop diarrhoea and strengthen the stomach, dried amla is steeped in some water, ground, mixed with a little salt and made into pills of the size of wild berries. One pill each time is taken in the evening.

Amla is also useful for diabetes. Dried amla and kernel of the seed of jambolana are ground together in equal parts by weight and six mashas of this powder taken along with fresh water.

Amla is also useful in case of chronic gonorrhoea. Dried amla and turmeric are ground together in equal parts by weight and seven mashas of this powder taken daily on empty stomach in the morning also with cow's milk or water.

Amla strengthens the roots of hair and prevents hair from turning grey. For these purposes amla is ground to a paste and applied to the roots of the hair and steeped in water, and this water is used to wash the hair. No oil is prepared from amla and used as hair

in equal quantities are ground together in water and applied to the inflammation of inguinal and axillary glands. This treatment is useful.

FEVER NUT (Karanjwa)

Bot. Name : Caesalpinia bonducella.

Other Names : *Arabic-Akitmakit, Bengali-Nata, Canaresc-Gazzaga, Gujrati-Gajga, Hindustani-Karanjwa, Malayalam-Kalimarakum, Marathi-Sagargota, Persian-Finduk, Sanskrit-Karanja, Sindhi-Karbat, Tamil-Avil, Gajji, Telugu-Gachakaya.*

The plant is supported by other plants; if it finds no

support it spreads on the ground and forms a bush, and its leaves grow on opposite sides of the midrib like those of tamarind. The branches are thorny. The fruit like castor fruit is divided into compartments and has a covering. Inside it there is found a bluish-grey stone. The shell of the stone is very hard and on breaking it a kernel is obtained. The kernel and the



leaves taste bitter and are generally used in medicine.

It is useful for malarial fevers. Nine mashas of the leaves of karanjwa and one grain of pepper are ground in water, strained and given to drink. Drinking it for 2-3 days will keep off fever. The leaves are not easily available at all places, instead of them, therefore, pills of the kernel of karanjwa may be made and used. Kernel of karanjwa, kernel of palas papra, leaf shoot of acaia, all three are taken in equal weights, finely ground and the powder made into pills with a little water weighing about 2 rattis each. One pill given at a time three times daily, in the morning, afternoon and evening cures every kind of malarial fever, even the quartan.

Karanjwa purifies the blood and kills intestinal worms. For this purpose the leaves are ground in water, strained and given to drink.

In case of hydrocele, the kernel of karanjwa is ground in water to a paste and applied warm, the water is thereby absorbed and the testicles resume their proper size, if applied patiently for 2-3 weeks.

Some people say that if 3 stones of karanjwa are buried in hot ashes till the shell is almost burnt, the kernel then taken out and given during an attack of asthma, it at once gives relief.

In case of stomachache due to flatulence, one masha each of kernel of karanjwa and dry ginger is ground finely and the powder administered; it allays the pain.

In case of scabies, 7 mashas of leaves of karanjwa, and 7 grains of pepper are ground together with water, strained and given to drink. At the same time 2 tolas of the kernel

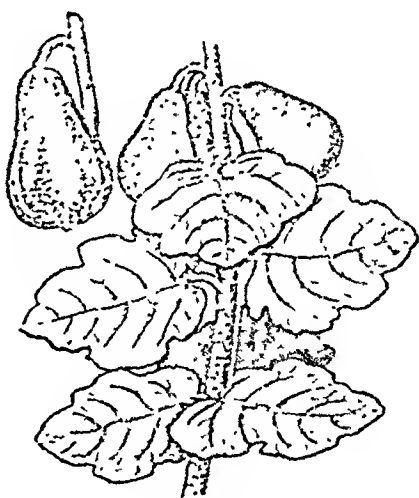
of karanjwa stone are burnt in one chhatank of mustard oil, the oil strained and applied to the part. A few day's treatment cures the itch.

FIGS

Bot. Name : Ficus Carica, Linn.

Other Names : *Bengali*—Doomoor, *Karnataki*—Anjuri, *Gujrati*—Anjra, *Hindustani*—Anjir, *Marathi*—Anjir, *Sanskrit*—Anjira, *Telugu*—Tencatti.

Figs are well-known, they are delicious and sweet, and eaten as fruit. They have also medicinal uses. They contain considerable amount of sugar, besides other useful constituents. Therefore they are nutritious and blood-forming. Their continuous use fattens the body and improves the complexion. A few figs eaten after a meal act as laxative. Their use is also good for cough and asthma, and helps in the expulsion of phlegm.



They resolve the swelling of the spleen. For this purpose figs are pickled in vinegar for a week and 2-3 figs eaten after a meal.

In case of small-pox and chickenpox, a decoction of figs, dried grapes (munaqqa) and *Khubkelan* given to drink hastens the appearance of pustules.

chebulic myrobalans, of each 5 mashas, are boiled together and the decoction given to drink. The worms are thereby killed.

FOUR O'CLOCK FLOWER (Gul-c-Abbas)

Bot. Name : Mirabilis Jalapa.

Other Names : *Arabic-Shahelleilli, Zahur Ajl, Bengali-Gulabbas, Canarese-Gulamaji, Hindustani-Gulabbas, Malayalam-Antimantaram, Marathi-Gulbas, Persian-Gulcabbas, Punjabi-Abasi, Sanskrit-Krishnakeli, Sindhi-Abhasic, Tamil-Pattarashu, Telugu-Charnaramalli.*

Gul-c-abbas is a flowering plant usually called gulabas. It is planted in gardens and houses for decoration, it attains a height of upto one yard, having numerous knotted tender branches. The leaves are triangular, long and tender. The flowers are of different colours, red, rose, white and yellow. The seeds are black, wrinkled, and resembling seeds of Habbulaas.

The leaves resolve all kinds of swellings, they are smeared with oil, bandaged on abscesses or boils which are quickly cured thereby.

The root also cures abscesses and boils, even carbuncle is cured by its use. The method of use is as under: The root of gul-c-abbas, the root of karer and old jaggery all three are taken in equal quantities, the roots are ground and mixed with jaggery and a little water and cooked. The paste is applied to a piece of cloth and pasted on the carbuncle. After 24 hours a fresh application is made. After one or two repetitions the swelling begins to resolve. Some burning sensation may be left on the spot. To remove "post khashkhash" (empty capsule of poppy)

tola of isphagula are cooked and the paste applied to a piece of cloth, 3 mashas of camphor sprinkled on it and used as a poultice on the spot. It will relieve the burning sensation.

Five mashas of the powdered flowers given orally benefit the hæmorrhoids.

One tola of the root boiled in water, strained and given to drink purifies the blood, cures gonorrhoea and scabies. The powder of the root taken internally acts as an aphrodisiac.

In cases of jaundice and dropsy the leaves cooked as vegetables are eaten.

GAOZABAN

Bot. Name : **Onosma Bracteatum Wall.**

Other Names : *Gujrati-Gholo-chodhars, Hindustani-Gaozaban, Karnataki-Karitumbc, Marathi-Chodhara, Sanskrit-Oshthaphala, Tamil-Peymarutti, Telugu-Magabira.*

Gaozaban consists of the leaves of a plant; the flowers of the plant are named gul-e-gaozaban and are used in medicine. The leaves and flowers, both of them, are used in cases of melancholia, insanity and palpitation of the heart. They act as a stimulant and cardiac tonic. Gaozaban is used largely in cases of cold and catarrh, cough, asthma, and congestion of the chest. Gaozaban, due to its slime, lubricates the bowels and expels the fæces. In case of congestion of the nose and chest due to catarrh, and accumulation of phlegm, five mashas of gaozaban, five mashas of licorice, and two tolas of sugar are boiled together and drunk. By repeating a few times catarrh runs and the congestion is relieved, and constipation, if any, is relieved also.

If a child is suffering from thrush and aphthae,

gaozaban is burnt. finely ground and
obtained by this treatment.

GARLIC

Bot. Name : *Allium Sativum*

Other Names : Bengali-Lasan,
tani-Lasan, Karnataki-Belluli,
Sanskrit-Lasuna, Tamil-Vellapuncha

Garlic is used as a spice along with
and chilies, in curries, vegeta-
bles and pulses. When eaten
raw it has sharp and dis-
agreeable taste, but it has
certain virtues which make it
an invaluable ingredient of
food. It removes the unplea-
sant smell of fish and flesh and
other articles of food, and
protects persons against the
evil climatic effects, streng-
thens the stomach, expels
winds and phlegm, lowers
blood pressure, cures skin
diseases, numbness, paralysis,
facial paralysis, cough and
asthma. It has been used
from ancient times in these diseases. Modern researches have
justified its uses.



It contains a characteristic oil which when ingested is
eliminated through the lungs and the skin. Therefore garlic
is useful in tuberculosis of the lungs, cough, asthma, and

ping cough. The smell of it is particularly useful in these diseases. Laymen also know its use in case of whooping cough. Cloves of garlic are shelled, pierced, strung into a garland which is hung round the neck of child suffering from whooping cough. The smell of it, penetrating through the nose to the lungs, gives relief. Besides there is an alternative method of its use in whooping cough. Garlic is shelled, placed under the sole of the child and fixed in place by wearing stockings and shoes over it. In case of tuberculosis of the lungs, smelling of garlic and licking 1-2 cloves of it ground in honey is beneficial. Half or one clove of garlic is ground in honey and given to lick to a child suffering from whooping cough.

The use of garlic is also beneficial in paralysis and facial paralysis. In cases of rheumatism, cough and asthma 1-2 cloves of garlic are given mixed with honey.

The external use of it is beneficial in leucoderma, ringworm, and blemishes of the skin. For this purpose it is ground along with salmiac and applied to the part.

In case of alopecia when hairless patches are formed on the head, beard and moustaches, disfiguring a person and causing psychological distress, use of garlic proves magical. A few cloves of garlic are ground together with a pinch of collyrium stone and applied to the part causes hair to grow afresh and disappearance of alopecia.

Migraine is relieved by the application of ground garlic on the aching side. Abscesses and pimples are also soon cured by the application of it. A pimple in the ear can be made to disappear or suppurate by dropping juice of garlic into the ear. Toothache due to worms infesting the teeth is relieved by pressing on the aching part warmed clove of garlic for a while.

One tola of garlic and six mashas of red lead (sendur) are ground together and cooked in mustard oil, strained and preserved. Pus flowing from the ear is stopped by dropping

this oil into the ear.

Garlic is also useful for scorpion-sting. It is ground and applied to the place and also eaten at the same time.

For rheumatic and other pains, garlic only, or along with other suitable drugs, is cooked in oil, strained and rubbed lukewarm on the part. Relief is obtained.

GAUMABOOTI

Bot. Name : **Leucas cephalotes, Spreng.**

Other Names : *Bengali*-Ghalaghase, *Gujrati*-Khetran-kubo, *Hindustani*-Gauma, *Punjabi*-Guldoda, *Sanskrit*-Chat-raka, *Telugu*-Tumni.

Gaumabooti grows wild in the rainy season in the maize fields. The plant is about $\frac{1}{2}$ a yard high, it bears balls of the size of a walnut having numerous holes from each of which a small flower emerges. The leaves and flowers of this herb have a bad smell.

Gaumabooti is very useful for chronic fevers. If boiled in water and given to drink for a few days it cures them.

It acts as an anthelmintic as well. Boiled in water and given to drink for a few days it kills and expels the intestinal worms.

The juice of the herb dropped into a worm-infested wound kills the worms.

It also resolves inflammation. The leaves are cooked and applied warm as a poultice to reduce the swelling.

Gaumabooti is an antidote against the poison of the snake. The juice of the green leaves is given to drink to a person bitten by a snake. If green leaves are not available, dry leaves are ground in water, strained and given to drink. If the patient cannot be made to drink the liquid, it should be

dropped into the nose and the ear.

The juice of the leaves when dropped into the eyes removes the yellowness due to jaundice.

GILO

Bot. Name : Tinospora Cordifolia

Other Names : *Arabic-Gilo, Bengali-Gulanha, Canarese-Madhuparne, Gujrati-Gulwel, Hindustani-Gulbel, Malayalam-Sittamrytir, Persian-Gulbel, Punjabi-Zakhmihaiyat, Sanskrit-Guluchi, Tamil-Vayamadu, Telugu-Guduchi.*

Gilo is a well-known creeper which climbs on neighbouring trees. Its leaves resemble betel-leaves but are more tender. All the parts of the plant are very bitter. That climbing on a neem tree is more useful.

Gilo is useful for all kinds of fevers, even hectic fever, and cures the most long-standing fever. The method of use is as follows: Green gilo (one tola) is crushed and steeped overnight in 3 chhatanks of water. In the morning, it is strained, mixed with a little sugar and drunk. Sometimes six mashas of ajowan is added to the gilo.

In case of burning sensation in the stomach or liver, or jaundice, 2 tolas of the juice of green gilo is mixed with whey and drunk. It gives relief. Similarly taken, it is useful also in diabetes. In case of diabetes 4 mashas of the powdered gilo may be taken at a time along with water or whey.

Gilo purifies the blood as well. It is used in cases of abscesses and boils, and the juice of the leaves is given to kill the intestinal worms also.

GINGER (Adrak)

Bot. Name : Zingiber Officinale, Roscoe.

Other Names : *Bengali-Ada, Gujrati-Adu, Hindustani-Adrak, Karnataki-Alla, Kashmiri-Sho-ont, Marathi-Alen, Pushtu-Ada, Sanskrit-Adhrakam, Tamil-Inji, Telugu-Allamu.*

Ginger is used as a spice. It is the rhizome of a plant which grows 2-3 feet high, the stem and leaves resembling those of sugarcane. It is cultivated in almost every part of the country. It is dried and prepared to make 'sonth'.



Ginger helps the digestion of food and increases the appetite. It expels phlegm, and is carminative. Persons suffering from weakness of the stomach, indigestion, and flatulence are greatly benefitted by its use. Added to wind-forming foods like pulses of black grām, cauliflower, arvi (*colocasia antiquorum*), it neutralizes their wind-

forming property.

In the cold season ginger taken along with jaggery creates heat in the body and mitigates the feeling of cold.

Distension of the stomach, stomach-ache, cough, asthma, rheumatism and other such diseases due to phlegmatic humour are benefitted by taking it, and constipation is also relieved.

In case of hoarseness due to cold, ginger taken along with

salt gives relief. Loss of voice due to ingestion of red lead (sendur) is also cured by its use.

In cases of phlegmatic cough and asthma 3 mashas of the juice of ginger is mixed with one tola of pure honey and licked to give relief.

In case of loss of appetite, flatulence or constipation, ginger is skinned and cut into small pieces, salt sprinkled on it and eaten. Appetite will return, wind will be expelled and constipation relieved.

To allay pains due to rheumatism or flatulence an oil prepared from it is rubbed in. Half a seer of juice of ginger is mixed with $\frac{1}{4}$ seer of sesame oil and boiled till all the water has evaporated and only oil is left behind. This oil is rubbed in when required.

GOOSE FOOT (Bathwa)

Bot. Name : Chenopodium Album, Linn.



Other Names : *Bengali - Bathu Sag, Gujrati - Cheel, Hindustani - Chandan Betu, Karnataki - Hunchik, Marathi - Chakwat, Sanskrit - Vastuk, Telugu - Pappu-kura.*

It is a well-known vegetable. It grows wild in fields of wheat and gram. It is cooked or fried and is eaten as a vegetable. It is easily digested and is laxative. It is useful in fevers and disorder of the liver.

Besides some experimenters claim to have found it

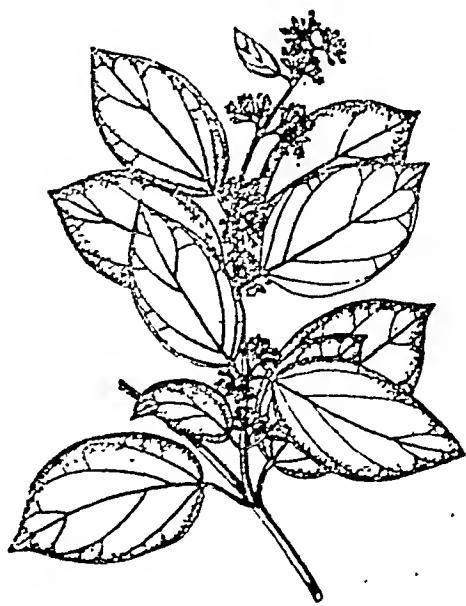
efficacious in case of leucoderma when used as follows: The juice of the leaves is applied 4-5 times a day on the white patches or the leaves rubbed on the patches and the vegetable eaten along with bread. After using for two months the white spots will disappear and the skin resume its natural colour.

GURMARBOOTI

Bot. Name : Gymnema Sylvestre.

Other Names: *Arabic-Barkista, Bengali-Gadalshingi, Canarese-Sannagera, Gujrati-Mardashingi, Hindustani-Gurmar, Merasing, Marathi-Bedaki, Persian-Kakrasingi, Kista, Sanskrit-Grihadruma, Tamil-Kogilam, Telugu-Podapatri.*

If some of this herb is chewed, sweet things do not taste sweet; hence it is named "Gurmar", i.e. killer of sweet taste. It grows in the hilly regions of Gwalior and Bhopal etc. It is a creeper spreading, like gilo, on acacia, kher, and other trees. Its leaves resemble the leaves of Bael, it bears long pointed pods 2-2½ inches long, which on breaking exude a white sticky fluid and reveal a white, lustrous, wooly substance filling the interior.



This herb is so effective in masking sweet taste that if it is added to a pan of jaggery, all the jaggery loses its flavour. On account of this property it is said to be useful in case of diabetes. Nine mashas of green leaves of it if available are ground with water, strained and given to drink, otherwise 3 mashas of powdered and sifted dry leaves are swallowed each time in the morning and in the evening, and continued for at least 2 weeks. The quantity of sugar in the urine will diminish.

The powder described below is useful for diminishing the frequency of urination and relieving diabetes. Ten tolas of each of gurmar booti and kernel of jumbolan stones are powdered and sifted and mixed with the calx (kustha) of iron ($1\frac{1}{2}$ masha). Six mashas of this mixture are taken each time in the morning and evening along with water. Sweet things should be avoided.

Gurmarbooti is also an antidote against snake poison. The place where a snake has bitten is cupped and the blood sucked out and filled with permanganate of potash and this herb is administered internally as a drink, ground in water and strained. It is also an antidote against the poison of pium. One tola of this herb ground in water, strained and given to drink every two hours for 2-3 times saves a person poisoned with opium.

Some physicians have advocated its use in plague and cholera. Six mashas of the leaves ground in water along with 5 grains of pepper, strained and given to drink every $\frac{1}{2}$ hour help a patient suffering from these diseases.

The bubo due to plague is also resolved by applying a paste of the root of this herb ground in water.

HENNA (Mehndi)

Henna is well-known. It is available everywhere. The leaves are ground to a paste and applied by women to the palms of the hands, soles of the feet and nails to impart red colour to them and look beautiful. Besides some people use it as a hair dye.

Headache due to heat is relieved by applying the leaves ground in water. Inflammation of the eyes due to heat is also relieved by applying it all round the eyes.

Thrush due to heat is relieved by washing the mouth with a decoction of the leaves.

Boils and pimples on the body or jaundice are cured by drinking an extract of henna leaves made by steeping them overnight in water, straining in the morning. Prickly heat is also relieved by applying henna.

HIRANKHORI

Bot. Name : Corchorus Fascicularis, Lam.

Other Names : *Bengali-Janglipat, Gujrati-Chhunchhadi, Hindustani-Khetapat, Marathi-Hirankuri, Sanskrit-Chanchu, Kalabhi.*

It is a small climbing herb and grows wild in the Rabi (winter) crop in fields of wheat and Bengal-gram. Its branches are slender and green, on breaking which a white milky fluid oozes out. Its leaves are tapering from the stalk and resembling the footmark of a deer. The flower is cup-shaped and white with some rosy tinge. The herb tastes very bitter. In the western districts of U. P. it is called "bel" (creeper) or "karwi bel". It is used as fodder. The herb is as

very good drug for the purification of blood. One tola of this herb is ground along with 7 grains of pepper, strained and given to drink continuously for 2-3 weeks. This cures all kinds of diseases like abscesses, boils, ringworm, scabies and gonorrhoea is also benefited by it.

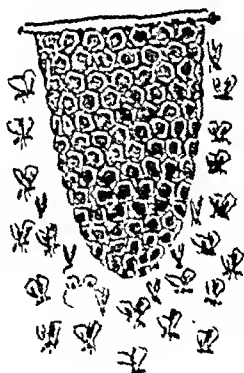
By grinding it and applying to abscesses or boils they are cleared, suppurate, burst, and heal quickly.

HONEY

Latin Name : Apis Mellifica.

Other Names : *Arabic-Aslul Nahal, Bengali-Madha, Gujrati-Madha, Hindustani-Shahed, Kashmiri-Mhach, Malayalam-Ayurmador, Marathi-Madh, Punjabi-Saht, Tamil-Taen, Telugu-Taenu.*

Honey is an article of food and a drug as well. It is very nutritive, more easily digestible than sugar and when taken along with milk it is a perfect food. It nourishes the body and creates energy and strength. Digestibility of food is enhanced by licking one or two spoon-fuls of honey after meals. It may be taken along with bread at breakfast, in the hot season a drink may be made from it mixed with limejuice. Besides invigorating the body it also protects from the effect of heat. It is also unparalleled for restoring the vigour and removing the exhaustion after hard work in summer. In winter, drinking a mixture of it with milk or tea creates warmth and strength in the body. It is equally beneficial to children, adults or



the aged.

It is also a valuable therapeutic agent. In case of total paralysis or paralysis it is given to drink for the first few days in a dose of 2 tolas boiled with 1st tola of water in the morning and in the evening, and no other food is given. Its use preserves the strength of the patient.

In a quarter seer of fresh goat's milk, half a tola of honey is mixed and drunk every *maghad*, *maghad* being the quantity of honey and milk day by day for a month to one seer. Thus used constipation is removed and the blood purified, the body nourished and invigorated.

Honey eradicates all sorts of *phlegm* (coughs, colds, &c.) mixed with 2 rattis of borax *maghad* to be used for thrush, it also removes bad taste, &c.

In case of difficult *urinary* of *urinary* (stone, &c.) in the gurn, honey mixed with *maghad* to be used to facilitate *urinary* of *urinary* (stone, &c.) in the gurn.

INDIAN BUTTER TREE (Mahua)

Bot. Name : Bassia Latifolia, Roxb.

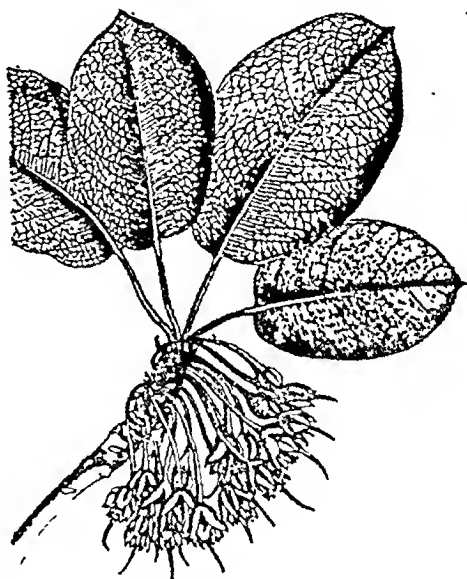
Other Names : *Bengali-Maua, Gujrati-Mahuda, Hindustani-Mahua, Karnataki-Ippe-mara, Marathi-Mohwa, Sanskrit-Modhhuka, Tamil-Kattiluppai, Telugu-Ippa.*

Mahua is a large tree, its leaves resemble mango leaves but are larger. The flowers are white, sweet and have a sickly sweetish smell. When the flowers dry they resemble dried grapes (munaqqa). The tree flowers in May and bears fruit afterwards. The fruits contain a stone from which oil is expressed. The oil is called mahua oil.

The flowers are nutritive. They are eaten as such or made

to halwa. Sugar and spirits are also prepared from them.

They act as aphrodisiac, they increase the production of semen and milk. Some people have mentioned their experience of finding mahua flowers useful in such chronic cases of cough which could not be cured by any other treatment, the method of use being as follows : Three tolas of mahua flowers are cleaned of their pollen found inside them. They are then cooked in half a seer of milk and eaten at bedtime. No other food is taken. A few days' use is helpful.



The mahua flowers ground along with strychnos beans and applied to the bite of a snake act as antidote to its poison. Pain and swelling of the testicles is relieved by exposing them to the vapours of boiling mahua leaves in water and fomenting with it. All kinds of pains due to phlegm or flatulence are relieved by rubbing in mahua oil. Rheumatism, lumbago, pleurisy and pain in the chest are relieved by rubbing in the oil and bandaging the part with warmed cotton wool.

INDIAN HEMP (Bhang)

Bot. Name : **Cannabis Sativa, Linn.**

Other Names : *Bengali-Bhang, Sidhi, Gujrati-Ganja, Hindustani-Ganja, Karnataki-Bhangi, Kashmiri-Bangi, Marathi-Bhang, Sanskrit-Vijaya, Telugu-Ganjayi.*

It is a well-known substance. Its plant is $\frac{1}{2}$ a yard in height. Some people grind the leaves in water and take it as a refreshing drink. It produces a peculiar intoxication which is exhilarating and induces laughter and talkativeness. Initially its use enhances the appetite and sleep but its prolonged use is harmful like that of other intoxicants, it



results in loss of appetite and sleeplessness and has a deleterious effect on the mind and heart leading sometimes to insanity.

It has also medicinal uses. For sleeplessness equal weights of bhang and white poppyseed are ground in goat's milk and painted like henna on the soles of feet. In case of pain and burning sensation due to piles, six mashas of bhang, is boiled in $\frac{1}{4}$ seer of milk, and at first the piles are fomented with it, afterwards it is made into a cake and bandaged over the hæmorrhoids, and made fast with loin cloth.

In case of pain or swelling of the testicles green bhang is ground (if green is not available, dry bhang should be ground with water) spread on a warmed leaf of castor plant and bandaged over the testicles. A few applications will give relief.

In case of ear-ache or worms infesting the ear the juice of green bhang leaves is instilled into the ear, and the worms are thus killed.

To stop malarial fever one masha of bhang is ground mixed with 2 mashas of jaggery and made into four pills and one pill administered every hour. If the fever is not kept off by this treatment on the first day, it will not attack on the second day by this treatment.

INDIAN LILAC (Bakain)

Bot. Name : Melia Azedarach, Linn.

Other Names : *Bengali-Ghoranim, Gujrati-Bakanlimbodo, Hindustani-Bakain, Karnataki-Mahaber, Marathi-Bakananimb, Pushtu-Bakyana, Sanskrit-Mahanimba, Sindhi-Bakayum, Tamil-Malai Wembu, Telugu-Turaka-Vepa.*

Bakain tree resembles neem tree, its leaves are rather larger than those of neem, fruits grow in clusters and are round. In every fruit there are four divisions and in every

the eyes cures sore eyes. Macula and nebula is also cleared by dropping the same for a few days.

IRON RUST (Khabsulhadeed)

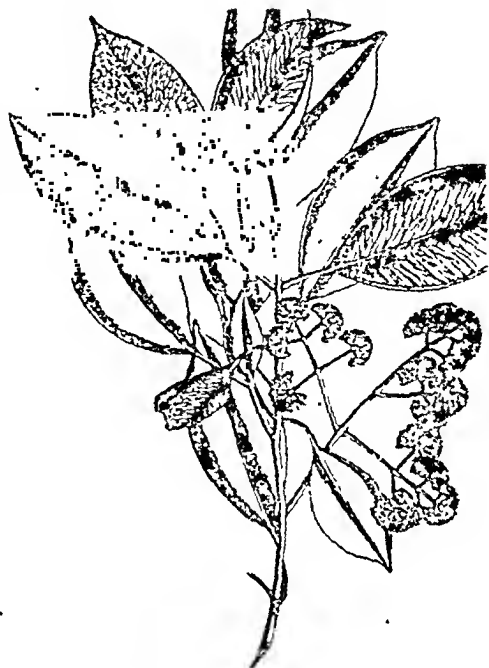
Latin Name : **Ferroso-Ferric Oxide.**

Other Names : *Bengali-Lohargu, Gujrati-Lodhano-kata, Hindustani-Lohaka-zang, Karnataki-Kabbinda, Sanskrit-Manduram, Telugu-Innupa-chittuma.*

Khabsulhadeed is the rust of iron which is available almost everywhere. It is very useful for the liver, stomach, spleen, and bladder. In cases of anaemia when the patient is pale and weak after loss of blood from the piles or menstruation or bloody stools, this is a very useful drug. A calx (kushta, bhasma) or some other preparations are made from it and administered orally. Below is given the process for one such preparation which is used to relieve anaemia and resolve oedema of the hands, feet and face which is the effect of the acute disease. *Dawa Khabsulhadeed :* Khabsulhadeed (20 tolas), tirphala, *i.e.* the three myrobalans, embelic, beleric and chebulic, (20 tolas) are ground together and sifted, and placed in an iron pan and covered with sour whey so as to submerge to a depth of 4 fingers under it and allowed to stand, stirring the whole every day. After 4 days it should be felt between the fingers. If found gritty more whey is added and allowed to stand for another 2-4 days. After this it is triturated by means of a pestle of iron to form a fine powder. Now dried ginger (3 tolas) is finely ground and added and the whole sifted through cloth and preserved in a bottle.

Three mashas of this medicine is taken each time along with whey in the morning and in the evening, and if whey is not available milk mixed with water (lassi) may be substituted.

Jamun is a well-known Indian fruit. It is eaten like other fruits and the kernel of its stone is used as a medicine. Jamun has some nutritive value but if eaten on an empty stomach it causes stomachache, therefore it should be eaten after meals with a little salt. For persons having bilious humour jamun acts as a tonic for the stomach and liver. It stops diarrhoea. It is useful for persons suffering from diabetes and diseases of the spleen. The kernel of the stone of jamun is constipating, and is given to stop diarrhoea, and to relieve diabetes.



A powder is prepared of equal weights of kernel of jamun stone, kernel of mango stone and small myrobalans. Three ashas of this powder is taken at a time along with whey. This treatment stops diarrhoea and is also useful in case of diabetes.

One tola of the kernel of jamun stone, and one tola of opium are ground fine and made into 21 pills with a little water. One pill each time taken in the morning and evening is useful in case of diabetes; it also stops diarrhoea.

The leafshoots of jamun are also constipating. One tola of these ground with water, strained and given to drink stop

Prolapse of the anus is prevented by washing the part with a decoction of jhau leaves.

The fruit, "mayaphal", is astringent and stops bleeding. It is used in cases of spermatorrhoea, tenuous semen, premature ejaculation and leucorrhoea. If gums have lost their tone or teeth are loose, a decoction of the fruit is used as a mouthwash. For the use it is incorporated in dentifrices also. Besides, by using it as a gargle enlarged uvula is also restored to normal, and sore throat healed.

Mayeen is ground fine and blown into the nose to stop its bleeding. The bleeding from a wound is also stopped by dusting its powder over it. Post-partural bleeding and leucorrhoea are also relieved by taking powder of the fruit. The salts extracted from ashes of the plant contain appreciable quantities of iron and cobalt.

KALABICHHWA (Devil's Claw)

Kalabichhwa is the name of a plant, also called wichhwa grass. It grows to a height of $1\frac{1}{2}$ yards. Its leaves are broad, and large like that of banyan tree but coarse and dentate. When the fruits ripen and burst seeds of black colour are obtained, having 2 thorns in their posterior part, and being crooked resemble the sting of a scorpion which gives it its name.

The seeds are hot. The oil obtained from it is rubbed in cases of paralysis, facial paralysis, rheumatism or lumbago. Its most important property is that of benefitting leucoderma. The method of its use is as follows: One seer of kalabichhwa, and babchi $\frac{3}{4}$ of a seer powdered together, sifted, and six mashas of this powder taken daily moistened with a little water will act as a purgative. If it does not act as such 9 mashas of it should be taken. If still not effective 1 tola to $1\frac{1}{4}$

tola of it may be taken. When the bowels are purged a daily dose of this amount may be taken and continued for forty days. In the course of this treatment the patches and the face will darken but should cause no apprehension. As diet, wheat bread and pulse (dal) of green gram should be eaten but spices and chillies should be avoided. When pulses (dal) are no more agreeable goat meat may be cooked with the addition of garlic and turmeric and the soup taken, but green vegetables, fruits should be avoided. From the beginning to the end of the treatment every third or fourth day in the afternoon a cooling medicine (tabreed) should be taken. After the end of the course of treatment Tabreed should be taken daily once or twice till recovery is complete. The recipe of the cooling medicine (Tabreed) is as follows: Seeds of kahu, kasni, the two cucumbers, khurfa, coriander, of each 4 mashas, are ground in water, strained, mixed with 2 tolas of sugar-candy and drunk.

KANDOORI

Bot. Name : Coccinia indica.

Other Names : *Arabic-Kabare Hindi, Bengali-Bimbu, Telakucha, Canarese-Tondeballi, Gujrati-Galedu, Hindustani-Kunduri, Malayalam-Gwel, Marathi-Bimbi, Tendli, Persian-Kabare Hindi, Kundrus, Punjabi-Ghol, Kanduri, Sanskrit-Bimbi, Sindhi-Golaru, Kanduri, Tamil-Kovai, Telugu-Bimbika, Kaidonda.*

Kandoori is a climbing herb. It grows in the rainy

season. It climbs over bushes and trees in the jungle. Its flowers are beautiful white. Its fruits are green resembling, wild snakegourd. On ripening they turn red.

The unripe fruits are cooked as vegetable, the ripened fruits are eaten as fruit; they are sweet.

Seven leaves of the plant are ground in water along with 7 grains of pepper, strained and drunk. This reduces the quantity of sugar passed with urine.

KATAI CHHOTI (*Solanum Xanthocarpum*)

Bot. Name : Solanum Xanthocarpum.

Other Names : *Arabic*-Badanjankarc, *Bengali*-Kantakari, *Canarese*-Kantakari, *Gujrati*-Bhoyaringini, *Hindustani*-Chhoti Kateli, *Satyanasi*, *Malayalam*-Kantakattiri, *Marathi*-Kantaringani, *Persian*-Badanagannedashti, *Punjabi*-Katela, *Sanskrit*-Kantakari, *Sindhi*-Aderayjadenay, *Tamil*-Kandan-gattari, *Telugu*-Vakudu.

It is a spreading herb, on its leaves and branches there are yellow sharp thorns, the flower is violet in colour, the fruits are round and of the size of a large plum. They are green and green when unripe; on ripening they turn yellow.

It purifies the blood, and acts as a purgative, it expels phlegm and kills intestinal worms. The fruit smoked in a hookah in place of tobacco kills the worms infesting the teeth.

The fruit ground in a little water, strained and dropped into the nostrils quickly restores to consciousness an unconscious epileptic and a plaster made from the fruit applied

Kura is moderately large tree, its leaves resemble those of arusa (bansa) ; its flowers are white ; the pods are long and resemble the pods of sahinjanah. When the pods are ripe, they contain seeds resembling barley but smaller in size, which are called Indarjau.

The seeds and bark of the tree are used in medicine. The bark is astringent and styptic and is used for stopping bleeding from the intestines or haemorrhoids.

A preparation made from it known as kurchi-bismuth iodide has been found useful in dysentery.

LEMON

Bot. Name : Citrus Bergamia, Ris.

Other Names : *Bengali-Nebu, Gujrati-Limbu, Hindustani-Nimbu, Karnataki-Limbay, Kashmiri-Niumb, Marathi-Limbu, Punjabi-Limbu, Sanskrit-Jambeeram, Tamil-Elumichhai, Telugu-Nimmapandu.*

Lemon is a well-known fruit. When expressed a sour juice is obtained from it. According to modern discovery this juice is rich in vitamin C. Vitamin B is also present in it. Therefore the juice preserves the 'normal condition of blood, stomach and intestines, is digestive and appetizing. t curressc urvy (a disease in which the composition of the blood is disturbed, gums become swollen and flaccid, and bleed).

The juice of lemon is generally added to curries or pulses (dal) and acts as an appetizer. More food is thus eaten and easily digested. Appetite is also increased. Used in times of epidemic of cholera etc. along with food it is very useful.

Limejuice lessens excess of biliousness and allays thirst.

LINSEED (Alsi)

Bot. Name : Linum Usitatissimum, Linn.

Other Names : *Bengali-Masina, Gujrati-Alshi, Hindustani-Alsi, Karnataki-Asgai, Kashmiri-Alish, Marathi-Alshi, Sanskrit-Atasi, Telugu-Atasi.*

The linseed plant is upto one yard high. The leaves and branches are tender and slender. It bears azure blue flowers and capsules of the size of Bengal gram, full of small flat, pointed, dark red seeds. These seeds yield an oil called linseed oil. The oil and the seeds are used as medicine.

The seeds are useful for cough and asthma, they easily expel the phlegm, a decoction of them is given to drink or a paste to lick as a treatment.



One tola of crushed seeds, and one tola of skinned and powdered licorice are boiled together in $\frac{1}{4}$ seer of water till half of it is left. Two tolas of pure honey added and given to drink, is useful in case of cough and asthma. It expels the phlegm and gives relief.

Linseed strengthens the body, cures lumbago, and in the cold season sweetmeat balls are made from it. It resolves swellings and allays pain. It is used as a poultice on abscesses, swellings and pustules. If resolvable the swelling is resolved, otherwise it suppurates and bursts. The method of applying the poultice is as follows :

Four tolas of the seeds are finely ground and cooked in 3 chhatanks of boiling water, spread on a piece of cloth and applied on the spot. Another method is as under : Four

tolas of linseed, and 3 mashas of black mustard are finely ground and boiled in three chhatanks of water, stirring with a spoon all the time. Then it is spread on a piece of cloth and applied lukewarm to the chest and bandaged. It is very useful in case of pain in the chest and pleurisy. If the patient feels burning and cannot tolerate it, it should be removed and warm pad of cotton bandaged in its place, otherwise a fresh poultice should be applied after 2-3 hours. Two or three applications will give relief. Linseed oil also resolves swellings, and allays pain. For this effect it is rubbed in cases of rheumatism etc.

An ointment is prepared from linseed oil and lime water, which is applied to burns to relieve pain and dry up the wounds.

LIQUORICE (Mulethi)

Bot. Name : Glycyrrhiza Glabra, Linn.

Other Names : *Bengali-Yashtu-madhu, Gujrati-Jash-timadh, Hindustani-Mulathee, Karnataki-Jeshtamadh, Marathi-Jastimadh, Sanskrit-Madhuka.*

Licorice is one of the universally known and available drugs. It is the root of a creeper. On breaking it, the inner part appears yellow. It has a sweet taste. Its dried extract is known as Rub-us-soos.

Licorice expels phlegm and relieves constipation. It is used in cough, asthma, hoarseness, rattling in the throat etc. and diseases of the throat and chest. It relieves scalding of the urine, is diuretic and relieves thirst. Ordinary cough is relieved by holding licorice in the mouth and sucking it. In case of cough, new or old, four tolas of licorice and one tola of pcepal (long pepper) are finely ground together, mixed

with ten tolas of pure honey and 6 mashas of it are licked at a time.

Finely-ground and sifted licorice applied to the eyes by means of a pencil strengthens the eyesight and removes yellowness of the eyes, if any.

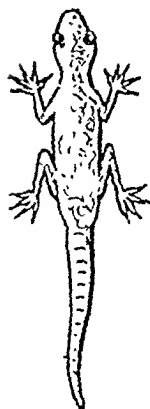
Nine mashas of licorice are finely ground, sifted, mixed with 6 mashas of brown sugar and made into 3 packets. One packet taken along with water every 3 hours stops hiccup.

LIZARD (Chhipkali)

Gecko Verticillatus, Laur.

Other Names : *Bengali-Takshakha, Sanskrit-Musali.* Chhipkali, the house-lizard, is a well-known reptile which creeps in summer over the walls and wood work in a house and in winter hibernates in some crevice out of sight. Just

as the Creator has bestowed on some herbs powers to heal some diseases, similarly has He given some animal powers to cure certain complaints. So the house-lizard is possessed of wonderful virtue of curing scrofula. An ointment made from it has been found effective in many cases of this disease.



The method of preparing the ointment is as follows: Four or five of the reptiles are killed and at once cooked on fire in an iron pan containing $\frac{1}{4}$ seer of mustard oil till they are charred, taken down from the fire and triturated in the oil to the consistency of an ointment. This ointment is applied daily

on the scrofulous glands for 3-4 weeks continuously. A wad of cotton is smeared with the ointment and bandaged upon the glands. The swelling is thus resolved. If the glands have suppurated and burst, application of this ointment to the wounds will heal them.

MACHHECHI BOOTI

It is a small spreading herb. It grows on the sides of ponds. As the water of the pond dries up the herb grows and thrives and in the month of June when the pond is almost dry this herb flowers and with the setting in of rains in July it dries. Its branches are knotty and slender and the flowers small and rose-coloured.

The herb purifies the blood. Seven mashas to one tola of it are given to drink ground along with 7 grains of pepper in water and strained. It is constipating and styptic. It is given in the above manner to stop bloody stools. It is also useful for spermatorrhoea.

Hæmorrhoids whether bleeding or not are cured by continuous drinking for some days one tola of the herb steeped overnight in water and strained in the morning.

The herb is very effective for drying up wounds. Therefore it is used as an ingredient of salves and oil is extracted from it and applied to wounds. The herb is crushed and the juice expressed, mixed with an equal weight of mustard oil and cooked till only oil is left. A wad of clean cotton-wool is dipped in this oil and placed on the wound. A few days' application dries up the wound.

MANGO

Bot. Name : Mangifera Indica, Linn.

Other Names : *Benguli-Am, Gujrati-Ambo, Hindustani-Am, Karnataki-Mampalam, Marathi-Amba, Sanskrit-Amra, Sindhi-Amb, Telugu-Mamidi.*

It is a well-known fruit tree of India and Pakistan. It is of two varieties—grafted and ungrafted or seedgrown. Unripe fruit, as long as the stone has not formed in it, is called “keri”. The unripe fruit is sour and the ripe fruit is sweet, delicious, and sometimes also sour-sweet.

The juice of a ripe seed-grown mango is sucked while a graft mango is sliced and eaten. The latter is more difficult to digest.

Ripe mango grafted or seedgrown strengthens the body and nourishes it, relieves constipation and its continuous use makes the body fat and strong.

According to modern researches mangoes contain the Vitamin C in considerable amount and also some Vitamin A. These Vitamins are specially useful for the growth of children. It is not advisable to eat mangoes on empty stomach. They should be eaten



after meals or in the afternoon. Drinking milk after eating mangoes enhances its usefulness. If after eating mangoes a few jumbolana fruits are eaten the former are easily digested.

Unripe mango protects from the effects of hot, parching winds (loo). Raw mango is buried in hot ashes, when cooked it is taken out, cleaned of the ashes, and the pith mixed with water, sweetened with sugar and given to drink. If available some keora water may be added to it, and it will become more effective.

The kernel of the stone of mango fruit is constipating, especially so is the old one. It is finely ground, sifted and 3 mashas of it is eaten along with fresh water. Diarrhoea is stopped by it. Besides in case of excessive menstruation or profuse bleeding from the haemorrhoids and growing weakness due to these, its administration is also effective. Excessive urination in diabetes is also lessened by its use.

The inner bark of the mango tree is also constipating. It stops diarrhoea and haemorrhage. In cases of excessive menstruation, profuse bleeding from the piles, or leucorrhoea, or diarrhoea and dysentery—in all these cases, the bark is boiled in water, cooled and given to drink, and is beneficial. In case of diarrhoea the bark is ground in whey and applied to the belly as a plaster and is also useful.

One or two tolas of the inner bark of the mango tree is steeped overnight in 3 chhatanks of water, strained in the morning and drunk. One week's use cures gonorrhoea.

The flowers of the mango known as maur or baur are useful in spermatorrhoea and leucorrhoea. They are dried in the shade, powdered, sifted, mixed with equal weight of brown sugar and 7 mashas of it taken along with milk or water.

A remarkable property of the flowers is as follows: When the flowers diffuse their fragrance they are plucked;

and rubbed on both palms; when exhausted, fresh flowers are rubbed. This is done for nearly an hour and the hands should not be washed for 3-4 hours following. The palms acquire a magical property thereby; when they are placed on a spot stung by a scorpion or wasp the pain and irritation are at once allayed. This effect is maintained for one year.

The leafshoots of mango are ground in water, strained and given to drink to stop diarrhoea. In case of bleeding from the intestines or piles or urethra, it is stopped also.

Amchoor : Unripe mangoes are peeled and the pith dried. This is called "Amchoor" which is used as a flavouring agent in foods and sauces. If a spider is crushed in contact with the skin amchur is ground in water and applied to it. Mango is also made into pickles and conserves. The pickle is very tasteful and digestive. The oil in which mango is pickled applied to the head cures alopecia. The mango conserve strengthens the body.

MARGOSA TREE (Neem)

Bot. Name : **Melia Azadirachta, Linn.**

Other Names : *Bengali-Nimb, Gujrati-Limba, Hindustani-Neem, Karnataki-Bevina-mara, Marathi-Kadunimba, Sanskrit-Nimba, Tamil-Vembu, Telugu-Vepa.*

It is a well-known tree, it flowers in summer diffusing a light fragrance in the neighbourhood, fruits follow resembling grapes. Unripe fruit is greenish and bitter, on ripening it turns yellow and sweetish. Inside the fruit is found a stone containing a kernel. This yields an oil. Some trees exude a sweetish liquid like date and palm trees which is called "Neem-sap". All parts of neem are bitter; but they are of great use.

this lampblack and one masha of fried alum are mixed with 2 tolas of butter and triturated in a bronze bowl with a pestle of neem wood. This when applied to the eye will allay the itching. If the eyelids are thick or eye-lashes have fallen off they will grow anew.

The fruit of the neem tree also purifies the blood. Ripe fruits, when eaten, purify the blood and remove constipation, and kill intestinal worms.

The kernel of the stones is useful for piles. It is given to eat along with other suitable drugs in case of piles whether bloody or not. Two tolas of this kernel is mixed with one masha each of pepper and googul and, made into pills of the size of wild berries. One pill each time, in the morning and in the evening, is taken along with water. The kernel is also rubbed on a stone with water, smeared on cotton-wool and applied to the hæmorrhoids and loin cloth bandaged upon it. The irritation and pain are relieved.

Neem oil is a very good antiseptic. It is useful for application on foul ulcers. If worms infest a wound, they are also killed thereby. Ointment is made from it for application on foul ulcers. The oil is also applied to the hair for killing head lice.

Neem 'sap' or Neem water also purifies the blood and acts as a tonic. Patients suffering from scabies, boils, eruption, gonorrhoea and leprosy are also cured by drinking this water. Five tolas of it are drunk daily.

MARIGOLD (Genda)

Bot. Name : Tagetes Erecta.

Other Names: *Arabic-Hajai, Hamahama, Bengali-Genda, Gujrati-Guljharo, Hindustani-Genda, Marathi-Zendu,*

Persian-Sadaberg, Punjabi-Genda, Sanskrit-Sthulapushpa, Telugu-Banti.

Genda is a flowering plant. It is usually planted in temples, mosques and houses for decoration. The plant is about a yard high. The leaves resemble hemp leaves. The flower is yellow, cupshaped, having numerous petals. The seeds are long, thin and black.

The leaves and flowers of marigold are used in medicine. It acts as a very good diuretic. When the leaves are ground in water strained and drunk, it expels along with urine the stones of the bladder and the kidneys. It also stops haemorrhage from the piles. For this purpose one tola of the leaves of marigold are ground in water along with 7 grains of pepper, strained and given to drink.

Marigold is an antidote against the poison of wasp-sting. When a wasp has stung, the leaves are ground with water, strained and given to drink, the ground leaves being at the same time applied to the place of sting. Pain and burning are relieved at once.

Marigold resolves swellings, dries up wounds and relieves pain. In case of swelling of the female breasts, in the initial stage a paste of ground marigold leaves is applied. If suppuration has set in, a poultice of cooked leaves is applied, pus will form and burst and the wound will also heal by continued application.

Ringworm and eczema are also cured by the application of the juice of marigold flowers. It is better to apply the juice first and then apply the residual flowers as a poultice.

Earache is relieved by dropping into it 2-4 drops of lukewarm juice of the leaves. Tooth-ache is relieved by using as a mouthwash a decoction of the leaves.

MARINE SHELL (Kaudi)

Latin Name : Cypraea Moneta, Linn.

Other Names : *Bengali-Beya, Canarese-Kavdi, Gujrati-Codi, Hindustani-Kowdi, Marathi-Kavdi, Persian-Khar-mahra, Sanskrit-Varatika, Tamil-Kavdi, Telugu-Gawahu.*

Shells are commonly known : they are the coverings of oysters and marine creatures.

When the shells are burnt the ashes obtained from it serves as a rubefacient. One tola of the ashes is mixed with 5 tolas of vaseline or butter and applied to the face every day. By continuing for some days the blemishes of the face are removed and the complexion becomes clear.

One variety of the shells is yellow. The ashes of the yellow variety is useful for earache. All sorts of earache are cured by it. If there is an abscess it is also cured by its use. The method of use is as follows : Yellow shells are burnt, finely ground and preserved in a phial. Two or three rattis of the ashes are placed inside the ear and over it limejuice is dropped. By dropping limejuice, effervescence will be produced and some time after it the pain will be relieved. Then the ear is tilted to one side, the liquid allowed to flow out, and a wad of cotton plugged in. If the pain is due to ear-wax it will also be cleaned.

MINT (Podina)

Bot. Name : Mentha Arvensis, Linn.

Other Names : *Bengali-Pudinah, Hindustani-Pudinah, Karnataki-Chetnimarugu, Marathi-Pudinah, Sindhi-Pfudnah, Telugu-Pudinah.*

Podina is a well-known aromatic herb. It is found all over in villages and towns. It is generally added to curry for its aroma. Besides, it acts as a digestive and carminative. It is therefore made into a pickle and taken along with meals.



It has also antidotal properties, therefore it is also used to counteract certain poisons. In cases of indigestion and dyspepsia six mashas of podina and 3 mashas of cardamom are boiled in $\frac{1}{2}$ a seer of water, strained and given several times. It stops vomiting and nausea, relieves stomachache and thirst.

Elephantiasis and varicose veins are improved by prolonged use of 6 mashas of podina ground in 10 tolas of whey. By the application of podina ground in wine on the face, spots and skin blemishes are removed. Also a black ring appearing round the eyes of some people vanishes by its continuous application. The pain due to the bite of a cat, weasel, or rat or the sting of a wasp or scorpion is also relieved by the application of ground podina leaves.

By instilling the juice of green podina leaves into the nose or ear wounds in any other place the worms infesting it are killed.

Podina is also useful in cases of urticaria. One tola of green podina or 6 mashas of the dry herb are boiled with 2 tolas of red sugar in water and given to drink. Some hakeems administer, in cases of urticaria, one tola of juice of green podina leaves, rose water, 5 tolas, and oxymel plain, one tola, mixed together. Three or four doses suffice to relieve the condition.

MUNDI FLOWER.

Bot. Name : *Sphaeranthus Indicus*, Linn.

Other Names : *Bengali-Mundi, Gujrati-Mundi, Hindustani-Gorakmudni, Mundi, Marathi-Barasavodi, Punjabi-Gurukmundi, Sanskrit-Mahamundi, Tamil-Kottakka-randai, Telugu-Bodasoram.*

It is one of the best-known herbs. Its flower is round like a knot, bluish green and bluish red. This is known as "gulmundi". The flowers and leaves of this herb smell like the flowers of unripe fruits of the mango tree.

This herb is very useful. It strengthens the heart and the brain, intellect and memory. It purifies the blood, gives strength to the stomach and increases appetite.

If one flower of this herb is swallowed without water in the morning, the eyes will not suffer from inflammation for one year, if 2 are swallowed for two years, and if 3 for 3 years. A number of hakeems have written about this virtue of the flowers. Besides, if the flowers are dried in the shade, powdered, sifted and mixed with an equal weight of brown sugar, and seven mashas of it taken along with cow's milk it is very useful for strengthening the brain and the eyes. It also removes general debility. In case of frequent inflammation of the eyes, complaint is cured by eating them. By oral administration of this herb the progress of cataract is checked. The method of its use is as follows : The herb, before it has flowered, is dried in the shade. To one chhatank of it $\frac{1}{2}$ a chhatank of pepper is added, powdered together, and mixed with $\frac{1}{2}$ a seer of brown sugar and 2 chhatank of clarified butter (ghee), and one or 1 $\frac{1}{2}$ tolas of it are taken every morning.

Mundi purifies the blood. For this purpose it is used alone or along with other drugs that purify blood. Nine mashas

of the herb including the flowers and leaves are ground in water along with 7 grains of pepper, strained and given to drink. It is very useful in diseases of the skin like scabies, ringworm etc.

Besides, it also removes weakness and palpitation of the heart.

MUSTARD (Sarson)

Rape-seed is a well-known oil-seed. The leaves and the stem of the plant are cooked as vegetable, and the oil from the seeds used as a cooking-fat. There are two varieties of it : yellow and black.

Yellow rape-seeds (5 tolas) are finely ground and mixed with honey (15 tolas) and licked to relieve phlegmatic cough. Rape-seeds are ground in water and applied to the face to remove the blemishes and freckles and clear the complexion.

Oil of Rape-Seed :

Rape-seed oil is also known as roghan siyah, rogan talkh or karwa tel. This oil is very useful. In the villages it is used as a burning oil and also as cooking-fat. It is preferable to artificial ghee for the purpose of creating energy and heat in the body. Anointing the body with this oil imparts freshness to the skin and cures the dry-itching. If a lean healthy person were continuously to rub this oil, it would fatten and strengthen the body.

Rape-seed oil, when mixed with camphor and rubbed, relieves the pain due to rheumatism and sciatica. The worms in ear are killed by dropping this oil into it.

NAYE BUTI

Naye is also called Nah. It is a small herb about $\frac{1}{2}$ a foot high. Its branches are thin-knotted, each knot bearing

small leaves around it and in the midst of them a small white flower. The herb tastes bitter.

It is specially useful for continuous fevers. Six mashas of it are ground with 5 grains of pepper, strained and given to drink. A few day's use cures the fever. In case of tuberculosis its use along with goma booti is effective, three mashas of each of these herbs are steeped overnight in water, strained, sweetened and drunk in the morning.

NEGRO COFFEE (Kasaundi)

Bot. Name : Cassia Occidentalis.

Other Names :

Bengali - Kalkashunda, *Canarese* - Doddatagase, *Gujrati* - Kasodarai, *Hindustani* - Kasondi, *Malayalam* - Ponnnaviram, *Marathi* - Kasoda, *Sanskrit* - Kashamarda, *Tamil* - Nattandagarai, *Telugu* - Kasinda.

This herb grows in the rainy season, the plant is 1-1½ yards high ; its leaves resemble those of the henna or senna, but are larger. The flowers are of yellow colour, the pods are 2-3 inches long, flat and curved like a sword ;



DRUGS AND SUBSTITUTES

hence in some places it is known as *fenugreek* (bean). On drying fenugreek-seeds are found to be hard. The variety which has black seeds is called "black kasaundi" and is considered more valuable.

This herb is an antidote against snake-bite. Five or six mashas of the root is ground with 3 grains of pepper in water, strained and given to drink for 2-3 times. It counteracts the poison.

In cases of oedema or enlargement of the liver and dropsy this herb is very useful. Its leaves (one tola) are ground with pepper (7 grains) in water, strained, and given to drink for a few days continuously; these conditions are relieved.

Fresh root of the plant is ground in water and the paste applied to the ringworm. A few days' treatment will cure it.

NIGAND BABRI.

This herb is a variety of Tulsi. It grows in the rainy season. Its flowers resemble tulsi flowers.

It is one of the best drugs for purifying blood. One tola of nigand babri is steeped overnight along with seven grains of pepper in 2 chhatanks of water. In the morning the clear liquid is decanted and drunk. This is continued for 2-3 weeks. It is useful for ringworm, scabies, leucoderma and leprosy.

Its use is also helpful in case of piles. It is drunk after grinding it along with a few grains of pepper in water, and straining.

NIGHT JASMINE (Har Singhar)

Bot. Name : *Nyctanthes Arbor-Tristis*, Linn.

Other Names : Bengali-Sekli, Singhar, Gujrati-Har-singhar, Hindustani-Harsinghar, Karnataki-Parijata

Marathi-Parijataka, Punjabi-Laduri, Sanskrit-Parijata; Tamil-Sudam, Telugu-Pagadamalle.

Harsinghar is a small tree, its buds yield a dye used for dyeing cloth. Rice is colored with them in the preparation called zarda.

Its seeds and flowers are useful for piles, and are used in different ways. The kernel of the seeds (2 tolas) is ground along with pepper (3 mashas) and made into pills with water of the size of green gram. Two mashas of these pills taken daily along with water stop the bleeding from the piles.

OLEANDER (Kaner)

Bot. Name : Nerium Odorum.

Other Names : *Arabic-Difli, Sumel Himar, Bengali-Karabi, Canarese-Karavira, Gujrati-Kanera, Hindustani-Kaner, Malayalam-Kanviram, Marathi-Kanher, Persian-Kharzahrah, Punjabi-Ganera, Pushtu-Ganera, Sanskrit-Karavira, Tamil-Karaviram, Telugu-Kanaviram.*

The Indian oleander tree does not grow to any great height, the leaves are long and the flowers are white, yellow and red, the varieties of it being named after the colour of their flowers. The fruit of all the three varieties is of the same shape.

It is useful for all kinds of itching. It cures ringworm also. Sometimes, on account of impurity of blood, the skin becomes dark, hardened and thick. This condition is also cured by its use. For these purposes the bark of the root



is ground in water and applied. Application of a paste of the leaves is also effective.

Oil is also prepared from it, which, when rubbed in, is useful in cases of scabies and ringworm, besides paralysis, facial paralysis, rheumatism and lumbago. The method of preparation is as follows :

Ten tolas of the leaves are boiled in $1\frac{1}{2}$ seer of water till $\frac{1}{2}$ a seer of it is left. The leaves are then pressed and the liquid strained. This liquid is mixed with $\frac{1}{4}$ seer of sesame oil, boiled till all the water has evaporated and only oil is left.

When the leaves or flowers of the Indian oleander are finely powdered and used as snuff they give rise to sneezing and catarrh runs, the headache due to congestion is also cured thereby.

ONION

Bol. Name : **Allium Cepa, Linn.**

Other Names : *Bengali-Piyang, Gujrati-Dungari-Kando, Hindustani-Piyaz, Karnataki-Necrulli, Marathi-Kanda, Sanskrit-Palandu, Sindhi-Lunn, Tamil-Vengayam, Telugu-Yerragadda.*

Pyaz (onion) is an ordinary household article. It is an important ingredient of curries. Besides nutritive value it possesses medicinal value as well. It protects from poison and epidemic diseases. When such epidemics as plague etc. prevail, onion is shredded and steeped in vinegar or limejuice and eaten at meal-time. It protects from the epidemic. A cholera patient is saved by drinking every two



PANWAR SEEDS

Other Names : *Bengali-Mehedi, Gujrati-Panwar, Hindustani-Mehndi, Karnataki-Madarangi, Kashmiri-Mohuz, Marathi-Panwar, Sanskrit-Raktagarba, Sindhi-Meritondi, Telugu-Goeranta.*

This herb grows in the rainy season in waste land. The plant is $\frac{1}{2}$ a yard high, has several branches and carries rather long round leaves which close at night and open in the day. The flowers are yellow and it bears long pods. When the pods are dry *moth-* (kidney beans) like seeds are shed. These seeds are used in medicine.

The herb purifies blood. The seeds are ground and applied in scabies, ring worm, leucoderma, and used for removing spots and skin blemishes.

In the villages poor people cook its leaves as vegetable. Some people have found that eating this vegetable works as prophylactic during an epidemic, specially of plague.

Persons suffering from phlegmatic cough, old ringworm, scabies, leucoderma or other skin diseases should use 5 mashas of the powdered and sifted seeds mixed with an equal quantity of sugar for 5 weeks continuously to relieve the condition. Locally the seeds may be applied ground in vinegar or limejuice.

Two tolas of the seeds are powdered and steeped in 2 chhatanks of curd and after 2-3 days when they have fermented are applied to the ringworm after scratching. By such application repeated a few times the ringworm is cured.



A piece of goat liver is taken and 4-5 fruit of peeplee are stuck into it, placed on a spit and turned on a fire. The juice trickling from it is applied to the eyes and is useful for night-blindness, and along with this treatment liver should also be given as diet. Peeplee also forms an ingredient of some collyriums useful for nightblindness, macula and nebula.

PIGEON PEA (Arhar)

Bot. Name : Cajanus Indicus, Spreng.

Other Names : *Bengali-Arhar, Gujrati-Tuver, Hindustani-Arhar dal, Karnataki-Katlakatu, Marathi-Turi, Pushtu-Rahan, Sanskrit-Adhaki, Telugu-Kandulu.*

Arhar is a well-known foodgrain. Dal is cooked of it like green and black grams. It is nutritive. Besides, it has several medicinal uses also. It is generally available in villages, therefore it can be put to such use in case of need.

Arhar facilitates the appearance of pustules of small-pox and chicken-pox. Sometimes their appearance is delayed or insufficient during these fevers. The water in which arhar dal has been cooked is given in such cases.

Arhar resolves swellings of inner organs and cures inner wounds. Some experienced persons say that arhar resolves the swellings of inner organs like stomach, liver, intestines etc. and improves the wounds or cancer in them. The method of use is as follows : One tola of the green arhar leaves are ground together with 7 grains of pepper in water, strained, and given to drink. The leaves are also ground in water and applied warm to the place of swelling and the water in which arhar dal has been cooked is given to drink at the same time.

Arhar cures alopecia. In this disease hair from the head, moustaches and beard fall off and round bare patches

Pomegranate is a very delicious juicy fruit. . According to taste it is classed into 3 kinds—sweet, sour, and sweet-sour. Kandhari variety which has ruby red corns is refreshing and tasty.



Ancient hakeems were well conversant with the nutritional and medicinal virtues of pomegranate. Modern researches have verified these.

It has been found to contain proteins, sugar, lime, iron and phosphorous. These ingredients are useful for forming blood and nourishing the body. Therefore it is the best fruit as regards its nutritional as well as medicinal value. Its tasty juice refreshes, allays thirst and supplies useful nourishment to the body. In case of fevers due to sanguine and bilious humours when the patient is not advised to take solid diet, the juice of pomegranate quenches the thirst, reduces fever, and, on account of its nutritive value, maintains his energy. If a patient suffering from bilious fever has nausea or diarrhoea the condition is also relieved.

Sour and sweet sour pomegranate helps in the digestion of food. The corns dried are used in digestive powder's (chooran). Five tolas of the corns of pomegranate and one tola each of sonth (dried ginger), white cumin, and black salt are powdered together and made homogeneous. This forms a very tasteful digestive powder. Six mashas of it taken after a meal help to digest the food and increase



in it to obtain the exuded opium. When it is dry it is removed from the plant and used as a drug. So long as it is filled with the seeds it is named '*post khashkhash musallam*' or "*koknar musallam*" (i. e. the entire poppy capsule). *Post khashkhash* is soporific and constipating and allays pain. For such purposes it is used in different ways. *Post khashkhash* (4 mashas) is boiled in water and given to drink and the same ground in water and painted relieves headache and induces sleep. Similarly it is useful in cases of delirium, sleeplessness and insanity.

In case of insomnia and insanity 3 mashas of *post khashkhash*, kernel of sweet almonds (5 seeds), kernel of pumpkin seeds (3 mashas) are ground in water, strained, and given to drink.

After childbirth the womb of the mother suffers griping pain, to relieve it 4 mashas of *post khashkhas* is boiled in water and given to drink, and 2 tolas of *post khashkhash* is boiled in 2 seers of water till one seer of it is left, then pads of cloth are steeped in it and used for fomentation of the pelvis.

In case of pain in the testicles or bladder 2 tolas of *post khashkhash* and 3 tolas of flowers of tesu (*butea frondosa*) are boiled and the decoction used for fomentation of the parts. In case of pain in the ear or eye the above decoction just mentioned is used as a vapour bath and also for fomenting.

In case of cough, coryza and colds, 3 mashas of *post khashkhash* and a little table salt are boiled, strained, and given to drink.

Three mashas of *post khashkhash*, and 5 grains of pepper are boild with water and given to drink to relieve intermittent fever whether tertian or quartan.

Post khashkhash, small myrobalans and aniseed, all three are taken in equal quantities, smeared with cow's butterfat and roasted in an iron pan but not allowed to char, and

then ground fine. This powder stops diarrhoea caused by weakness of the stomach. Six mashas of this powder are taken each time with fresh water in the morning and evening.

Post Khashkhash musallam, (the entire capsule containing the seeds), 10 tolas, is pounded a little and boiled in one seer of water till one third of it is left, strained and to the liquid one seer of sugar is added and cooked to a syrup. This syrup is allowed to cool and preserved. It is useful in cases of cold and cough due to heat, when one tola of it is licked each time 3 or 4 times a day, or mixed with water and drunk in the morning and in the evening.

POPPY SEED

It is cultivated. If an incision is made in its fruit or branch a milky fluid exudes from it which coagulates. This is opium. The fruit is known as "Post khashkhash or Doda khashkhash", it contains small white seeds called "Tukhm hashkhash". These seeds are obtainable at the grocer's in villages and towns generally, and are used as medicine in several diseases. When the seeds are ground in water and the paste applied to the forehead, it relieves headache due to heat. Three mashas of the seeds ground in water along with seven sweet almonds, strained and drunk strengthen the brain, remove dryness and give sound sleep. The seeds and bhang (Indian hemp) ground together in water and the paste applied to the palms and soles brings on sleep. The seeds ground with water, mixed with limejuice and rubbed on the body cure dry itch.

POTASSIUM NITRATE, NITRE (Shora Qalmi)

Latin Name : **Potassii Nitras**

Other Names : *Arabic-Abkar, Ubkir, Bengali-Shora, Shorakhar, Gujrati-Shora, Malayalam-Vetiuppu, Persian-Shoraba, Sanskrit-Yavakshara, Tamil-Pottil-uppu, Telugu-Patlu-uppu.*

Nitre is a well-known substance. It is easily obtainable at the grocer's in villages and towns. It is useful in the following diseases.

In case of suspension of urination one masha each of black mustard and nitre is finely ground, mixed with an equal weight of sugar and given along with water being repeated after 2 hours. At the same time six mashas of nitre is dissolved in water, a pad of cotton cloth is dipped in it and placed below the navel on the pelvis. In a short time urine will be passed. If the patient is a child and the medicine cannot be administered orally, in that case a pad soaked with a solution of nitre placed on the pelvis also acts as a diuretic.

Nitre is also useful for gonorrhoea. When the urine is scanty and passes with pain, 2 tolas each of nitre and Ceylon cardamom are powdered together and made into 12 packets. One packet is taken at a time for 3 days in the morning and in the evening along with water, afterwards one packet each day is taken for 3 days along with Sathi-rice water. Sathi rice (2 tolas) is steeped overnight in 4 chhatanks of water, strained in the morning and drunk. This is sathi-rice water.

Nitre is also a useful drug for preventing the attack of asthma. One tola of nitre is dissolved in 2 chhatanks of water. A piece of white blotting-paper is soaked in this solution, dried in the sun and preserved. In case of distress due to an attack of asthma a roll is made of this paper, igni-

violet crystals. If a few crystals are dissolved in one chhatank of water it produces a rose red solution.

In the rainy season when well-water generally gets polluted and on account of it epidemics like cholera occur, it is used for disinfecting wells, the population is thus spared a great calamity. Its use for this purpose is explained elsewhere in this book.

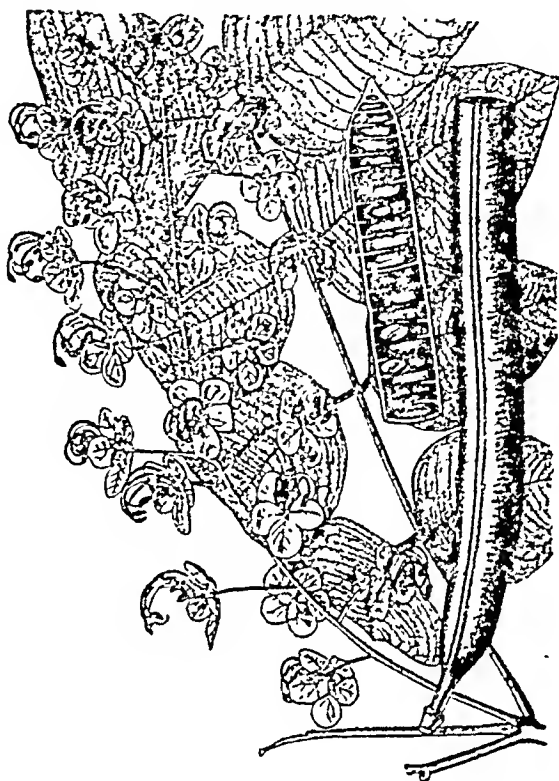
Besides, this drug is used for washing dirty wounds as well and considered very effective. One ratti of the drug is dissolved in $\frac{1}{4}$ seer of water and the wound washed with it and if the wound is inside the nose or ear a syringe is used. This solution is also used for washing the womb after childbirth. It is also useful in cases of snakebite. It can work as a life saver in such cases. The method of its use is as follows: A tight bandage should at once be placed above the place of the snake bite and with a sharp knife or razor a cut made in the shape of +. Then the place is pressed and as much blood as possible allowed to run out. Then the cut is filled with the finely powdered drug which is rubbed in with the fingers so as to dissolve in the blood and render the poison harmless.

Similarly this drug is also useful in case of dog-bite. Finely powdered drug should be dusted into the wound. If the wound is narrow it should be broadened with a knife.

Sometimes hair from the beard or moustaches fall off and leave hairless patches and disfigure the face. This condition is known as alopecia. Potassium permanganate is a useful drug for this condition as well. A pinch of potassium permanganate is dissolved in a few drops of water and applied to the patch. Should a burning sensation arise by its use it may be discontinued for a day or two. If a scale has formed it should be allowed to peel off and the application resumed. The treatment should be continued in

in 15 tolas of rose water, expressed and strained in the morning, mixed with 6 mashas of the oil of sweet almonds and 2 tolas of sugarcandy and drunk. Two or three thorough evacuations will result. If there is swelling in the stomach, liver or intestines it will disappear and constipation will be relieved.

In case of diphtheria the pith of amalatas is very effective. In this disease the inside of the throat is swollen, a morsel of bread or even water is difficult to swallow. In this condition gargling with a decoction of the pith of amalatas gives wonderful relief. This common drug produces an effect not obtained by costly treatment. The method of gargling is as follows: Half a seer of cow's milk is boiled, and 5 tolas of the pith added to it, then it is taken down from the fire, and left covered for 10 minutes. After this the pith is expressed and the milk strained. The patient is allowed to sit and take a draught of the milk and gargle with it. If cow's milk is not available, water may be used in stead of it. For external application the pith is ground in the juice of green mako (*solanum nigrum* or black nightshade) and plastered on the swelling. It is useful in case of both internal (as in the stomach, liver or intestines etc.) and



RED LEAD (Sendur)

Latin Name : **Plumbi Oxidum Ruburm.**

Other Names : *Arabic-Isrenj, Bengali & Gujrati-Sindur, Hindustani-Sendur, Malayalam-Chinturam, Persian-Suraj Sung, Sanskrit-Sindura, Nag Sambhava, Tamil-Sangap-pusiduram, Telugu-Yerrasenduram.*

Red lead is a well-known substance. It forms a pale red powder and is made from lead. It is available in small villages even. In some regions women paint the parting of hair with it.

It is a good disinfectant. It kills the worms infesting a wound, and quickly clears and cures the most foul wounds. Therefore it is generally made into an ointment for use. The method of preparing such an ointment is given below, and is known as black ointment.

Black ointment : 30 tolas of sesame oil are boiled in an iron pan; when boiling 10 tolas of red lead are added and constantly stirred with an iron rod till a drop of it poured on the ground begins to solidify. Then it is taken down. It is preserved in an ointment pot. If three to four mashas of blue vitriol is added to this ointment it becomes more effective. When required it is plastered on a piece of cloth and applied to the wound.

Red lead cures hemicrania. It is rubbed on a piece of white indigenous paper, made into a roll and fired at one end and the smoke led into the nose before sunrise.

RED SUGAR

Red sugar is the sugar made from jaggery, which is obtained by evaporating the juice of sugarcane. It is evaporated to a consistency greater than jaggery, spread on a plank of wood and allowed to cool. While cooling

some red efflorescence is sprinkled over it, rubbed between the hands and powdered. This is red sugar. Poor people use it in place of white or crystallized sugar. Besides being nutritious it is also laxative. In case of constipation, 5 tolas of red sugar dissolved in milk taken at night produces thorough evacuation in the morning. It is a very good remedy for relieving casual moderate constipation.

RED WOOD (Sheesham)

Bot Name : Dalbergia Sissoo, Roxb.

Other Names : *Arabic-Sasam, Sasim, Bengali-Shisu, Canarase-Agatu, Gujarti-Sissom, Hindustani-Sheesham, Malayalam-Iruviel, Nepali-Sissu, Punjabi-Nelker, Sindhi-Sissu, Tamil-Gatti, Telugu-Ettasissu.*

Sheesham is a well-known tree, and is often planted along



the roads and railway lines. The timber is very strong and used for making furniture, that which is useless for this purpose is burnt as firewood. Laxmen know only these uses but not its medicinal use. The sawdust purifies the blood. It is used along with other medicines for purifying blood. Steeped by itself in water and the

water decanted. mixed with syrup of jejobes, when drunk is useful in cases of scabies, ringworm and leucoderma. The boils and pimples are also eradicated.

The oily fluid which exudes at the end of burning sheesham wood when applied to the ringworm cures it. The hard wood reduced to powder and subjected to the process of patal jantar for extracting the oil, yields an oil which cures ringworm when applied to it.

A wound produced by pinching of the shoe or any other cause is quickly healed by applying a paste of the leaves. The leaves are useful in case of spermatorrhoea. When the patient is youthful and of hot temperament or suffering from gonorrhoea, two tolas of the leaves of sheesham are steeped overnight in a cup of water, pressed out in the morning and the viscous fluid strained, mixed with 2 tolas of sugar-candy or sugar and given to drink for a week. It cures spermatorrhoea. This treatment is also effective in case of leucorrhoea, but it is indicated only in case of youthful patients of hot temperament.

ROUGH CHAFF TREE (Chirchata)

Bot. Name : Achyranthes Aspera, Linn.

Other Names : *Bengali*-Apang, *Gujrati*-Safed Ajhedo, *Hindustani*-Chirchata, *Karnataki*-Uttarance, *Marathi*-Aghada, *Sanskrit*-Apamarga, *Telugu*-Uttaraene.

Chirchata is a herb having slender knotty branches up to two feet in height, its leave are broad and rough On the

some red efflorescence is sprinkled over it, rubbed between the hands and powdered. This is red sugar. Poor people use it in place of white or crystallized sugar. Besides being nutritious it is also laxative. In case of constipation, 5 tolas of red sugar dissolved in milk taken at night produces thorough evacuation in the morning. It is a very good remedy for relieving casual moderate constipation.

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ROUGH CHAFF TREE (Chirchata)

Bot. Name **Achyranthes Aspera, Linn**

Other Names : Bengali-Apang, Gujarati-Safed Aher, Hindustani-Chirchata, Karnataki-Uttamra, Ma

3, Sanskrit-Apamarga, Telugu-Utt

Chirchata is a herb having stem two feet in height, its leaves are broad

tips of branches small flowers are produced which stick to the hand or garments.

The herb is an antidote against the poison of the snake or scorpions. The root is ground with water and given to drink and also applied to wound. It is also useful in case of



hæmorrhoids. Seven mashas of the leaves are ground with seven grains of pepper, strained and given to drink; it stops bleeding from the hæmorrhoids, and a cake is made of the leaves and bandaged after warming on the hæmorrhoids for some days makes them dry up and fall off.

Chirchata herb resolves swellings. The leaves are smeared with oil, warmed and bandaged a few times.

Then all sorts of boils and pimples disappear. Swellings of the glands between the thighs or armpits are also resolved. The root has also the same effect. It is ground to a paste in water and applied. The herb is burnt and salt extracted from the ashes which is known as salt of chirchata. This salt is digestive, appetizer, and carminative. Besides, it expels phlegm from the chest, and is given in cases of cough, asthma, stomachache, flatulence, enlarged liver or spleen. Salt of chirchata is also useful in case of dropsy. It is given in a dose of $\frac{1}{2}$ -1 masha along with camel's milk.

SHANKHAHOLI

Bot. Name : Canscora Decussata, Sch.

Other Names : *Bengali-Dankuni, Gujrati-Shankhavali, Hindustani-Shankhaholi, Marathi-Shankhapushpi, Sanskrit-Shankhapushpi.*

It is a spreading herb, its leaves are long like doob grass but broader. In the fields in which doob grass grows it is also usually found. Its flowers are white, bellshaped, but rather pinkish. It flourishes in the months of May and June when most other plants wither.

The herb purifies the blood, strengthens the brain, restores loss of memory, clears the complexion, and is useful in spermatorrhoea and diabetes. In these cases it is used as follows : Nine mashas of the herb, leaves and branches, are ground in water along with 7 grains of pepper, strained, sweetened with 2 tolas of sugar-candy and drunk. If 7 kernels of sweet almonds are also added along with it, it more useful for the brain. Besides being useful in the above complaints drinking it as prescribed above in the summer season allays thirst and reduces suffering due to heat.

During an epidemic of smallpox its use acts as a prophylactic. Three mashas of it ground in water along with 3 grains of pepper and given a child to drink protects him against the attack which if at all is only mild.

Green herb is not obtainable in all seasons, therefore it is uprooted before the rains set in, dried in the shade and preserved. This serves as well.

Moreover, if the dry herb is powdered and 3 mashas of the powder taken each time in the morning and in the evening it is useful in cases of spermatorrhoea, nocturnal emissions, burning sensation during urination and gonorrhoea.

SANTH (Horse Purslane)

Bot. Name : *Trianthema Monogyna*, Linn.

Other Names : *Bengali-Gado-cunya, Gujrati-Satudo, Karnatakaki-Muchugoni, Marathi-Bichkapra, Sanskrit-Punarnava, Sindhi-Narmah, Tamil-Sharunnay, Telugu-Galijeru.*

This herb grows abundantly during the rainy season.



It spreads on the ground. The leaves are thick and round, the flowers are generally white. It grows in villages in the streets and ruins. It is very useful. In case of macula, nebula, fissure of the corners of the eye and itching of the eyes its root rubbed in water and the paste applied to the eyes relieves the conditions. The root dried in the shade is mixed with $\frac{1}{6}$ part of turmeric, powdered and sifted. Three mashas of this powder taken at a time relieve chronic cough and asthma. The leaves of santh (one tola), and pepper (5 grains) ground together in water and given to drink produce profuse urination. If one masha jawakhar salt is mixed with it burning sensation and gonorrhoea are benefitted.

The herb is dried and 2 tolas of it steeped overnight in water, strained in the morning, mixed with one masha of potassium nitrate (shora qalmi) and given to drink, also the leaves, branches and roots of the herb are ground in water and applied to the belly at the same time. This treatment is very effective in case of dropsy.

SATYANASI (Yellow Thistle)

Bot. Name : **Argemone Mexicana, Linn.**

Other Names : *Bengali-Shealkanta, Gujrati-Darudi, Hindustani-Pila-dhatura, Marathi-Kanta-dhotra, Sanskrit-Swarna-kshiri, Tamil-Birama-dandu, Telugu-Brahmadandi-chettu.*

The plant grows to a height of one yard. Its leaves and branches are thorny, the colour of its stem and branches is whitish-green, there are white lines on its leaves, its flowers are of yellow colour, beautiful and bell-shaped, and when they have fallen off, quadrilateral longish fruits grow. When these fruits dry, black seeds of the size of poppy-seeds are found in them. A peculiarity of this plant is that when its leaf or branch is broken, a yellow-coloured fluid oozes out of it.

This herb purifies the blood and is used in many skin diseases. If a person is suffering from syphilis and itching and foul sores or rheumatism of the joints, one tola of the seeds of this herb is ground in water, strained and given to drink for a few days. The condition is relieved and the foul matter expelled as watery evacuations of the bowels.

If a person is bitten by a mad-dog, two tolas of the seeds are ground with seven grains of pepper, strained and given to drink. Vomiting and diarrhoea set in and the poisonous matter is expelled.

The milk which oozes out on breaking the leaf or twig of the plants when applied by means of a pencil to the eye or dropped into them relieves their pain and inflammation.

The seeds are pressed like mustard-seeds to obtain oil. This oil is useful in case of scabies. Itching is relieved by a few

days' use. This oil is also purgative. One masha of it mixed with $\frac{1}{4}$ seer of milk when taken produces four to five motions. Besides, four to five drops of this oil mixed with a little sugar when eaten kill the intestinal worms. By administering 3 drops at a time of this oil every two hours to patients of cholera they are put to sleep and cured of this dangerous disease.

SEBESTEN PLUM (Lasora)

Bot. Name : Cordia Latifolia, Roxb.

Other Names : *Bengali-Bahubar, Bal-phal, Gujrati-Gudan, Bargund, Hindustani-Lasora, Karnatuki-Maunadikay, Doduchallu, Marathi-Bargund, Punjabi-Laswara, Sanskrit-Bhuselu, Sindhi-Lesuri, Tamil-Selu, Telugu-Bankana-kkera.*

Lasora tree is abundant in groves and forests. The dry fruits are used in medicine and are easily obtainable everywhere.

Lasora cures the rattling of the throat and windpipe, thickness of the phlegmatic fluid of catarrh and makes it easy to expel. On account of the mucilage contained in it it acts as a laxative. By eating fresh ripe fruit the defects of the consistency of seminal fluid are corrected and spermatorrhoea due to heat is cured. Also hot catarrh, dry cough and dysentery are benefitted by eating them.

If fresh fruits are not available, dry fruits (one tola) are steeped overnight in 3 chhataks of water, expressed in the morning, strained, sweetened with sugar-candy and drunk. Spermatorrhoea, hot catarrh, scalding urine and excessive thirst are relieved thereby; dry cough is relieved as well.

SENNA

Bot. Name : **Cassia Lanceolata, Linn.**

Other Names : *Bengali-Sona-mukhi, Gujrati-Senamakki, Hindustani-Hindi Sena, Karnataki-Nilavirai, Marathi-Sona-makki, Sanskrit-Svarnapatri, Telugu-Naelaponna.*

Senna is the leaf of a plant, the leaves of which resemble senna leaves. It is a very common drug available at every apothecary or grocer's shop in villages. In the forests of some regions it grows wild.

Senna is laxative, purifies the blood and kills worms. It is used to relieve constipation in cases of rheumatism, lumbago, sciatica, asthma, and malarial fevers. For purifying blood it is given along with other drugs that purify blood.

If a suckling mother uses senna, its purgative principle passes through her blood into her milk and acts as a purgative upon the baby.



1. Six mashas each of aniseed and senna are boiled in water and mixed with 2 tolas of brown sugar. This drink relieves constipation.

2. Six mashas of senna are boiled in $\frac{1}{4}$ seer of milk and

mixed with 2 tolas of sugar made from jaggery. This is a useful drink for relieving constipation.

3. About $1\frac{1}{2}$ mashas of finely ground senna leaves taken along with 2 tolas of confection of rose-leaves produce a thorough evacuation of the bowels.

SESAME SEEDS

Bot. Name : **Sesamum Indicum, Dc.**

Other Names : *Bengali-Til, Gujrati-Tal, Hindustani-Til, Karnataki-Yellu, Kashmiri-Til, Marathi-Teel, Sanskrit-Tila, Sindhi-Thirr, Tamil-Ellu, Telugu-Nuvvulu.*

It is a well-known oilseed. The oil is pressed and used. It is made into sweets with sugar. There are two kinds of it, a white and a black one.

It is an aphrodisiac and it fattens the body. For this purpose the seeds are washed and pounded with equal weights of kernels of sweet almonds and poppy seeds and mixed with sugar. One or two tolas are taken along with milk for two or three weeks.

Sesame seeds act as antidote to Bhilawan (marking nut) poison, a mixture of the two in suitable proportion may be ingested with impunity,

The black exudation of the marking-nut produces a swelling wherever it comes in contact with the skin. This swelling is resolved by the application of sesame oil. If the whole body is swollen, 4-5 tolas of sesame oil should be given to drink besides application to the body.

Bed-wetting is relieved by eating sweets prepared from sesame seeds called rewri or gazak, also frequent micturition is helped. Sesame seeds are more useful in case of these complaints. By applying a mixture of seeds and bark of

siris (albizzia) ground in vinegar to acne of the face they are cleared. The leaves of the plant are pounded and smeared in the roots of hair, or a decoction of them used to wash hair. The hair grow strong, long and shining thereby. If the leaves are ground and smeared on the head the dandruff is removed. Cactus is a thorny plant with very fine white thorns. If these thorns happen to prick a person's body they are very difficult to take out and cause great trouble. Sesame oil helps in such cases. The place should constantly be anointed with sesame oil, and the thorns will be expelled.

In the cold season the dew which collects on the flowers and leaves of the plant should be applied a few times by plucking these to the spots of the face to make them disappear.

SHAHDEVI (Country Mallow)

Bot. Name : Sida Rhombifolia, Linn.

Other Names : *Bengali-Kheriti, Gujrati-Banmethi, Hindustani-Lalbariala, Shahdevi, Karnataki-Kisangi-hettutti-gida, Marathi-Sadevi, Sanskrit-Mahabala, Tamil-Tenacham, Telugu-Atibala.*

Shahdevi is a herb which grows wild in fields of cane-sugar, maize or Indian corn during summer and rainy seasons. In winter it is killed by cold. The plant grows to a height of about $\frac{1}{2}$ a yard, its leaves resemble Tulsi leaves but are hairy, the flowers are violet in colour, its taste is somewhat bitter and the smell is peculiar.

This herb purifies the blood, relieves and sanguine humours. For this purpose it is strained and given to drink : also it is b

pillows and beds. The root of one or two year old tree is used in medicine under the name of "moosli-senbhal". The gum of this tree is called "Mochras" and is used as a medicine.

Moosli senbhal is used mostly for sexual potency. The method of its use is as follows : One tola of moosli senbhal is steeped overnight in 2 chhatanks of water, in the morning it is expressed, strained, sweetened with sugar-candy and drunk. It is very effective in case of sexual debility, spermatorrhea and tenuity of semen.

The bark of senbhal boiled in water and applied as a poultice to abscesses or tumours makes them suppurate and burst.

The gum of Senbhal (mochras) is useful in cases of spermatorrhoea and leucorrhoea. Besides, it is also used for stopping diarrhoea and excessive menstruation. It is powdered, mixed with equal quantity of sugar and six mashas of it taken at a time along with water, in the morning and in the evening.

SIRIS TREE

Bot. Name : Albizzia Odoratissima, Benth.

Other Names : *Bengali-Shirish, Gujrati-Sirac, Hia br-tari-Siris, Karnataki-Basari, Marathi-Siris, Sanskrit-Shirisha, Telugu-Chinaduga.*

Siris tree is a large tree which is planted along roads. Its leaves resemble those of a lotus but are larger. The pods are about 1 foot long and contain seeds which are smaller than them.

A decoction of the bark of siris is used as a mouthwash in case of pain in the gums or toothache. Acne are cured by continuous application for a few days of the bark of siris ground with water.



In case of dropsy and oedema of the whole body drinking of the decoction of the bark of siris gives relief.

The seeds of siris are useful for the eyes. They are mostly used in collyriums. Applied by themselves as a powder to the eyes they relieve the itching, night-blindness, macula, nebula and haziness.

A snuff prepared from powdered seeds of siris produces sneezing in case of congestion due to cold and catarrh and makes it run and relieves the pain and discomfort. Hemis-
crania is also relieved by smelling it.

Three mashas of the powdered seeds taken along with milk every morning relieve the complaints of spermatorrhoea, premature ejaculation and tenuity of the semen and act as an aphrodisiac. The seeds of siris are also useful in case of serofula. They are powdered, sifted, mixed with twice their weight of honey and preserved for 40 days. Six mashas of this are taken along with water.

SMALL FENNEL (Kalonji)

Bot. Name : Nigella Sativa, Linn.

Other Names : *Arabic*-Habbatus Sauda, Shuniz, *Bengali*-Mungrela, *Canarese*-Karimsiringam, *Gujrati*-Kalonji-jirum, *Hindustani*-Kalonji, *Kashmiri*-Tukmiganda, *Malayalam*-Karunshi-ragam, *Persian*-Shuniz, *Sanskrit*-Sthulajiraka, Kalajaji, *Tamil*-Karunjiragam, *Telugu*-Nellajeclakaria.

Small fennel are black seeds resembling onion seeds ; they have sharp smell and bitter taste. They are used in pickles along with fenugreek, aniseed etc.

Small fennel is digestive and carminative. It kills intestinal worms also and relieves flatulence. It is diuretic and emmenagogue. It is also useful in cases of stones in the bladder or kidneys, as well as chronic fevers due to phlegm or black bile, rheumatism, gout and sciatica. In all these cases, five tolas of it are steeped overnight in vinegar, the next day dried in the shade, ground finely, sifted and the powder mixed with 15 tolas of cooked honey and preserved. Six mashas to one tola of it are taken as a dose.

Small fennel, asparagus seeds, ajowan seeds, fenugreek all four in equal weights are mixed whole and swallowed every morning in a dose of 3-4 mashas along with 2-4 draughts of lukewarm water. This recipe has been designated by physicians as "governor of body". It is useful in cases of rheumatism, lumbago and other pains arising from phlegmatic humours or flatulence. It is also useful in case of hiccough. Three mashas of it are finely ground, mixed with 1 tola of butter and licked.

It is also useful for removing the yellow colour of the eyes after jaundice. Seven grains of it ground in human milk and introduced into the nose is helpful.

Five tolas of small fennel are crushed mixed with 1 tola

VILLAGE PHYSICIAN

seer of sesame oil, cooked on slow fire, strained, and preserved. This oil is rubbed with advantage in case of rheumatism, lumbago, paralysis and facial paralysis.

Small fennel ground in vinegar and applied cures leucoderma, ringworm, alopecia, and acne of the face.

In case of acute cold smelling of roasted small fennel gives some relief. In case of chronic headache or hemicrania it is ground in vinegar and introduced inside the nose. Relief is obtained.

SNEEZE WORT (Nakchhikni)

Bot. Name : Centipeda Orbicularis, Lour.

Other Names : *Bengali-Nakk-Chhikni, Gujrati-Chiki-kani, Hindustani-Nakchhikni, Marathi-Nakasinkani, Sanskrit-Chikkana, Sindhi-Afkar.*

It is a spreading herb, its leaves are small and flowers yellow and small.

By smelling the green herb or using powdered and sifted dry herb as a snuff it induces sneezing, makes the nostrils run and relieves the headache due to congestion.

By applying a paste of the ground herb to the ringworm it is cured.

SOAPNUT (Reetha)

Bot. Name : Sapindus Trifoliatus, Linn.

Other Names : *Bengali-Ritha, Gujrati-Aritha, Hindustani-Ritha, Karnataki-Aritala, Marathi-Rithe, Sanskrit-Arishta, Telugu-Kukudu.*

Soapnut is the fruit of the soapnut tree, and is of the size of a betel-nut. Its outer skin is wrinkled and darkish yellow. On breaking it open a dark stone resembling kanwal-gatta (sacred lotus-nut) is obtained containing a white kernel inside.

Soapnut is antidote against snake poison. The rind of the nut is ground,

sifted and stored in a bottle. When a person is bitten by a snake six mashas of this powder is mixed with water and given to drink. Vomiting and diarrhoea will set in and the patient will recover. If necessary the treatment may be repeated after two hours. If the person bitten by a snake is senseless soapnut-water should be dropped inside the



gullet in any possible way little by little. If powdered soapnut is not at hand, the rind should be ground with water, strained and given to drink. The poison of scorpion sting is also counteracted by drinking it and applying it to the wound. If a spider has been crushed in contact with some part of the body and there is pain and burning sensation on that part relief is obtained by applying rind of the soapnut ground in water to the part.

By applying rind of the soapnut ground in water to the face the blemishes disappear and the complexion becomes

taken along with milk. Besides, the kernel also cures infantile tuberculosis. The kernels from 3 stones are triturated in 4 tolas of the milk of a black goat and made into 14 pills. One pill is mixed with goat's milk and given each day.

Soapnut drives away scorpions and snakes. For this purpose the rind is ground with water and sprinkled all over the house.

SODA BICARB

Soda bicarb is known as baking soda, edible soda or sweet soda. It is available everywhere in villages and towns. Usually it is used for raising dough, but it is also given as medicine in certain complaints and proves useful. If the body itches due to dryness or urticaria, there is burning sensation of the skin which causes discomfort, one masha of soda bicarb is dissolved in one chhatank of water and applied to the place by means of a wad of cotton and relief is obtained. In case of carious teeth (or headache due to it), or toothache, 3 mashas of soda bicarb is dissolved in 3 chhatanks of water and used as a mouthwash. Relief is obtained.

If earwax has dried up inside the ear and it is difficult to remove, 3 mashas of soda bicarb are dissolved in one tola of glycerine and mixed with $\frac{1}{2}$ a chhatank of warm water, 2-3 drops of the mixture is then dropped into the ear. By repeating a few times, the wax will soften and can be easily removed.

Occasionally cough is due to disorder of the stomach. In such a case 3 mashas of soda bicarb is dissolved in $\frac{1}{4}$ seer of water and one draught of it taken, and by repeated draughts within 2 hours the whole of the solution ingested. The process is repeated after 2-3 hours. This treatment repeated a few times will relieve the cough.

The symptoms of acidity of the stomach are a burning sensation in the stomach after meals, sometimes also in the chest, sour belchings, flatulence and constipation. Besides pain is felt in the pit of the stomach when the stomach is empty. This condition is relieved by the administration of soda bicarb in the following manner : (1) One masha of soda bicarb is finely ground along with 4 rattis of dry ginger and taken along with a few draughts of water. If necessary another dose may be taken after 2 hours. (2) One masha of soda bicarb and 4 rattis of salmiac are mixed with 5 tolas of podina water and taken $\frac{1}{2}$ an hour after meals. (3) One masha of soda bicarb, two mashas of aniseed, and two mashas of coriander, the latter two in fine powder, are mixed and the mixture taken along with water after meals.

If vomiting is due to indigestion, one tola of soda bicarb is mixed with 6 mashas of finely ground cardamom, and one masha of this mixture is given each time every two hours along with water, two or three times.

In case of acidity of blood and troublesome itching due to it one masha of soda bicarb is dissolved in one chhatank of water and given to drink 3-4 times in the day and the patient bathed in a solution of one chhatank of soda bicarb in 10-15 seers of water. In case of boils and pimples appearing on the body on account of acidity of blood the above treatment is helpful.

Soda bicarb is a very good medicine in case of indigestion for children. Half to one ratti of soda bicarb is mixed with an equal weight of finely powdered rhubarb and some sugar, and the mixture is administered orally.

Note : Soda bicarb should be administered in small quantity at a time. Given in large quantity at a time it does harm.

SPIDERERWEB

What is meant here is not the gossamer but the white cobweb of the size of a rupcè which is found attached to walls and in villages to stores of straw, firewood etc. This cobweb applied to a cut stops bleeding. It is also useful as a preventive of malarial fevers. Fever does not recur after its use. Being tasteless it can be easily administered to children. Malarial fevers of all kinds, quotidian, tertian or quartan, are benefitted by it. The method of its use is simple. A cobweb is enclosed inside a pill of jaggery and given 2-3 hours before the expected attack of fever (for children $\frac{1}{2}$ or $\frac{1}{4}$ of a cobweb suffices). If the fever is not kept off the first day by using it, it will not recur after the second day of its use. If the patient's bowels are constipated they should be cleared beforehand. A second method of its use is as follows: The cobwebs are removed, cleaned of dirt, and powdered; a grey powder will be obtained, which will be tasteless and odourless. It is not soluble in water, but is soluble in alcohol. The dose of the powder is one ratti for the adults and $\frac{1}{4}$ - $\frac{1}{2}$ ratti for children according to age.

SPIRIT

Spirit is a colorless watery liquid, it has a pleasant smell and sharp taste. It is inflammable. There are two kinds of it. (1) Rectified spirit. The tinctures prepared by doctors contain this as a base. (2) Methylated spirit. This is used internally. It is mostly used for burning, or preserving dead bodies from putrefaction.

Spirit is a powerful antiseptic. If the skin is abraded hurt or cut with a knife, axe etc., application of spirit to it is useful. The pain and burning is allayed and pus does not form.

(dahi) and allowed to stand for one hour. Then it is taken. *Khichri* is used as diet. Two or three days' use will cure it.

Chronic constipation due to the dryness of the intestines is relieved by swallowing one tola of isphagula along with $\frac{1}{4}$ seer of milk. Four mashas of the husk of the isphagula swallowed with milk or water also relieves constipation.

Isphagula is also very useful in cases of dry cough and asthma. One tola of it is taken daily along with milk or water for at least 40 days.

Whitlow is the swelling of a finger. It generally affects the joint or root of a finger or toe. It gives great pain so that the patient cannot enjoy his food or sleep due to it, and screams all the time. No treatment seems to help but rather aggravates the condition. Isphagula has been found to be a very efficient remedy for the condition. When 2-3 days have passed and no relief is obtained, one tola of isphgaula is steeped for about 10 minutes in nearly 4 tolas of water, then it is smeared on the part till a thick layer of it forms on it and a little water dropped on it occasionally after six hours. Another portion of isphagula is similarly applied immediately after removing the previous application and kept moist as before. This treatment is to be repeated four times in 24 hours. The pain will be allayed and the swelling will suppurate and burst. To treat the wound subsequently, a ball is made of ground neem leaves, covered with wet cloth and plastered over with clay and fired. Then it is taken out of fire, the coating removed and the contents applied warm to the wound. By continuing the application for a few days all the pus will be expelled, and the wound cleared. Now some ointment should be applied to cure it.

One tola of the leaves of sanbhalu are boiled in 5 tolas of mustard oil till they are charred and then triturated to form an ointment. This ointment is applied to the wound.

In case of headache due to heat, isphagula is steeped in water along with green coriander leaves and applied to the forehead after a while.

STAG'S HORN

Cervus Elephas.

Other Names : *Bengali-Gaoj, Gujrati-Sambar-singdum, Hindustani-Barasinga, Karnataki-Kadavi, Marathi-Meru, Sanskrit-Sambara-Singa, Telugu-Kannadi.*

Stag horn is obtainable at all places, and is a useful remedy for many ailments. It is specially useful in case of pleurisy. It should be rubbed with a little water on a hard stone ; when some of it has rubbed off seven grains of pepper should be added and ground along with it, then the paste should be taken in a spoon, warmed and applied to the painful spot. When dry, the spot should be warmed by means of a burning dung-cake. One or two applications will relieve the pain.

Moreover, if stag horn is rubbed in goat milk or human milk and applied by means of a pencil to the eyes, continuously for a few days, it relieves itching of the eyes and nebula or macula.

If a piece of stag horn weighing about 2 tolas (about $\frac{1}{4}$ oz.) is taken and a paste of one tola each of ajowan and nitre ground with water smeared on it, allowed to dry and placed in a fire made with one seer of charcoal, it will form into a white calx. If not quite white at first, the treatment may be repeated a second time. This calx is useful in cases of pleurisy. One ratti (2 grains) of this calx should be licked mixed with one tola (180 grains) of pure honey. This same calx mixed with butterfat which has been washed twenty one times is applied to scrofulous tumours ; they disappear after a few day's use.

SWEET POTATO

Bot. Name : *Ipomoea Batatas*, Poir.

Other Names : *Bengali-Chincalu*, *Lalalu*, *Canarese-Genasu*, *Gujrati-Kanangi*, *Sakaria*, *Hindustani-Shakarkand*, *Malayalam-Kapakalinga*, *Marathi-Ratali*, *Persian-Lardak-Lahori*, *Punjabi-Shakarqand*, *Sanskrit-Pindalu*, *Sindhi-Gajar Lahori*, *Tamil-Sakkarcivelleiki-Langu*, *Telugu-Chelagada*.

Shakarqand (sweet potato) is a well-known tuber which is eaten after boiling or roasting. It is sweet and agreeable to taste. It contains starch together with sugar, therefore it is completely nutritious and builds the body. It acts also as an aphrodisiac. A halwa made from it serves this purpose besides being nutritious. The method is as follows : Sweet potato is finely ground and dried, powdered and sifted. Half a chhatank of the powder is fried in $\frac{1}{2}$ a chhatank of ghee and syrup is made from 2 chhatanks of sugar. Halwa is prepared from this syrup and the fried powder. If desired almonds, pistachio nuts and cocoanut may be finely shredded and added to it. Moreover halwa can also be prepared from boiled or roasted sweet potatoes. Boiled sweet potatoes are shelled, fibres removed, fried in ghee, mixed with syrup and made into halwa.

TAMARIND TREE (Imli)

Bot. Name : *Tamarindus Indica*,

Other Names : *Bengali-Ambli*,
Hindustani-Amli, *Karnataki-Hunisay*,
Sanskrit-Tintiri, *Sindhi-Siyanobula*, *Tamil*
Chinta-pandu.

Tamarind tree is found almost everywhere in India and Pakistan. It bears pods 3-4 inches in length, covered with a thin shell and containing a dark red pith inside them. The pith tastes pleasantly sweet-sour, and encloses dark red very hard seeds. The pith and the kernel of the seeds are used as medicine.

Tamarind is cooling. It allays preponderance of sanguine and bilious humours. It expels bilious humours along with stools. In the hot season, as a protection against the effects of heat,



syrup is made from tamarind and drunk. Four or five tolas of the pith is steeped in 6½ chhatanks of water; after 2-3 hours the clear water is decanted, sweetened with sugar or sugar-candy and drunk.



In case of bilious fevers administration of the above drink brings down fever, allays thirst, relieves nausea and vomiting and refreshes the patient. It also relieves palpitation of the heart, due to severity of heat.

Tamarind acts as an appetizer, helps to digest food and increases the appetite. For this purpose 4 tolas of the pith is steeped in a little water; when swollen it is rubbed with the hands and freed from the seeds and fibre, and the residue mixed according to taste with sugar, salt and chillies is taken as a relish along with food.

The kernel of the seeds is very useful for men in cases of spermatorrhoea, nocturnal pollution, premature ejaculation

and thinness of the seminal fluid, and for women in case of leucorrhoea. The seeds are first roasted in an oven, shelled, powdered, sifted and mixed with an equal weight of sugar. Six mashas of it are taken every morning along with cow's milk or fresh water. This powder taken along with water stops diarrhoea also. The seed of tamarind rubbed in water and applied once every hour to the sty cures it.

The swelling produced by the marking-nut is resolved by drinking one tola of the leaves of tamarind ground in water and strained.

TAMARISK (Farash)

Bot. Name : Tamarix Dioica, Roxb.

Other Names : *Arabic-Asl, Bengali-Laljhao, Gujrati-Lalja, Hindustani-Farash, Jhau, Punjabi-Faras, Pushtu-Khwa, Sanskrit-Pisulu, Sindhi-Jao, Tamil-Attumari, Nirumari, Telugu-Palivela, Poligi.*

Farash is a large tree. It is a bigger variety of jhau. Its leaves resemble jhau leaves. It bears fruit of the size of a grain of Bengal gram, which are called small *mayan*.

The leaves and wood of this tree are used in cases of swelling of spleen. The smoke from burning leaves of it is allowed to play upon sores of small-pox or hemorrhoids to make them dry up. A paste of the leaves is painted on hot swellings, specially of the face due to *sirkh bala*.

TINCTURE IODINE

Tincture of Iodine is a very useful medicine. In all villages it is known by the simple name "Tincture of Iodine" and is usually available and mostly used for external applications.

All sorts of swellings, sores and boils are cured by its application. It does not allow formation of pus; if pus has already formed its formation is prevented. A swab wetted with it is applied to a swelling or boil; for application to a wound it has to be diluted with water till its colour is light red and the wound is washed with it. If desired an ointment may subsequently be applied, otherwise an ordinary wound is cured by it alone.

If joints are swollen due to rheumatism or a swelling of a gland or spleen or liver has occurred its application is effective. In case of pleurisy if the painful part is smeared with this tincture repeatedly the pain is generally relieved. In case of pneumonia it helps absorption of the fluid from the membrane of the lungs. If signs of appearance of a boil in some part of the body are felt or glands between the thighs or in the armpits are swollen tincture of iodine painted on the spot stops their growth, and the swelling is resolved by repeated application of it. Ringworm, alopecia, boils and itch are also cured by its application, but in case of ringworm strong tincture of iodine has to be used.

Sore mouth is also cured by the application of tincture of iodine; if the gums are swollen, the swelling is resolved by its use. The tincture should be diluted in these cases; so much water should be added to it as will reduce its colour to light red, a wad of cotton is then dipped with it and applied to the part.

In case of plague it can be used with advantage. The bubo is resolved by painting with it. Its internal use has also been reported to be effective in plague. The method of use is said to be as follows:

Two drops of tincture of iodine are added to $\frac{1}{2}$ a chhatank of water and given every two hours on the first day and every three hours on second and every four hours on the third day. When fever and other symptoms have abated one

dose of it should be administered 3 or 4 times in the day. It is to be noted that tincture of iodine for internal use must be prepared with rectified spirit of wine.

TOBACCO

Bol. Name : **Nicotina Tabacum, Linn.**

Other Names : *Bengali-Tamak, Gujrati-Tamakhu, Hindustani-Tamaku, Karnataki-Tambaku, Marathi-Tambaku, Sanskrit-Tamrakuta, Sindhi-Tambaku, Telugu-Pogaku.*

Tobacco is a well-known article. The leaves are pounded, mixed with treacle, placed in a bowl covered with fire and the smoke drawn through a hubble-bubble. Besides it is smoked in the form of *bidi*, cigarettes, cigars and pipes. Some people eat it along with betel-leaf, others smell it in the form of snuff. In whatever manner it is used it only does harm and no good. Generally people acquire the habit by imitating others. It can be useful if used as a medicine only.



Tobacco is an antidote against snake-bite. Dried tobacco leaves (one tola) boiled in water and given to drink produce vomiting and motion of the bowels and expel the poison. If dried leaves are not procurable, two tola of fresh tobacco may be dissolved in water.

strained and the solution given to drink.

Tobacco is also useful for cough and asthma. A syrup is made from the leaves of it and drunk. The easiest way of using it is as follows: The residue left after smoking tobacco in a hubble-bubble is collected and burnt to white ashes. This is preserved and one ratti of it licked each time two or three times in the day.

If gums are swollen, or teeth ache, one tola of surti tobacco, one tola of pepper, saubhar salt $1\frac{1}{2}$ masha, all three are powdered finely, sifted and preserved. This powder is rubbed on the teeth and gums and the fluid running out from them allowed to escape. After using a few times, swelling and pain will disappear.

Tobacco is also useful in cataract. Snuff tobacco (one tola) is triturated in a mortar for 12 hours in castor oil and preserved in a phial. It is applied to the eye daily by means of a pencil. If testicles are swollen and pain is felt in them, a green tobacco leaf is warmed and bandaged on them and relief is obtained. If a green leaf is not available, a dry leaf may be softened by sprinkling it with water, smeared with oil, warmed and bandaged.

Oil is also obtained from tobacco, which is useful for the deepest and oldest wounds and sinus. In case of pyorrhoea it is applied on the gums and teeth. It also kills head lice and ticks. It cures the wound of children's head. Sores found on the body due to unhealthy blood are also cured by the use of this oil. Application of this oil in case of rheumatism of the joints is useful.

The method of preparing this oil is as follows:

Green tobacco leaves are crushed and the juice expressed from them, mixed with an equal weight of sesame oil, and cooked on a moderate fire till all the water has evaporated and only oil is left. This is cleaned and preserved in a phial for use. If green leaves are not available, dry leaves

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may be steeped overnight in sixteen times their weight of water, boiled in the morning and, when only one fourth of the water is left, strained, mixed with an equal weight of sesame oil and cooked till only the oil is left behind.

Use of tobacco smoke : Smoke from tobacco collects on that part of hubble-bubble where the bowl is set ; this deposit is scraped off, collected and an equal weight of soap mixed with it and made into a pill. This pill is rubbed in two drops of water, and applied to the eyes by means of a pencil to cure night-blindness. A few applications are effective.

TULSI

Bot. Name : Ocimum Basilicum, Linn.

Other Names : *Bengali-Babui-tulsi, Gujrati-Sahje, Hindustani-Tulsi, Karnataki-Ram-Kasturi, Kashmiri-Hazbo, Marathi-Sabza, Sanskrit-Bisva-Tulsi, Sindhi-Sabajhi-Telugu-Blu-tulsi.*

Tulsi is a well-known plant. Hindus hold it sacred and worship it. It is generally planted in the temples and also sometimes in the houses.

Tulsi leaves give off an aromatic smell which drives mosquitoes away. If it is planted inside the house the inmates, are protected from the mosquitoes and malarial fever.

If the pustules of small-pox or chicken-pox are delayed in appearance and the patient is uneasy, a few leaves of Tulsi plant should be ground along with a little saffron and given to drink to hasten their appearance.

Six mashas each of leaves of Tulsi and aroo (banya) ground in water, strained and given to drink relieve cough and asthma. A decoction of Tulsi leaves given to drink induces perspiration and relieves fever. The swelling behind the ear due to mumps is resolved by the application of

strained and the solution given to drink.

Tobacco is also useful for cough and asthma. A syrup is made from the leaves of it and drunk. The easiest way of using it is as follows: The residue left after smoking tobacco in a hubble-bubble is collected and burnt to white ashes. This is preserved and one ratti of it licked each time two or three times in the day.

If gums are swollen, or teeth ache, one tola of surti tobacco, one tola of pepper, sanbhar salt $1\frac{1}{2}$ masha, all three are powdered finely, sifted and preserved. This powder is rubbed on the teeth and gums and the fluid running out from them allowed to escape. After using a few times, swelling and pain will disappear.

Tobacco is also useful in cataract. Snuff tobacco (one tola) is triturated in a mortar for 12 hours in castor oil and preserved in a phial. It is applied to the eye daily by means of a pencil. If testicles are swollen and pain is felt in them, a green tobacco leaf is warmed and bandaged on them and relief is obtained. If a green leaf is not available, a dry leaf may be softened by sprinkling it with water, smeared with oil, warmed and bandaged.

Oil is also obtained from tobacco, which is useful for the deepest and oldest wounds and sinus. In case of pyorrhoea it is applied on the gums and teeth. It also kills head lice and ticks. It cures the wound of children's head. Scales found on the body due to unhealthy blood are also removed by the use of this oil. Application of this oil in case of rheumatism of the joints is useful.

The method of preparing this oil is as follows:

Green tobacco leaves are crushed and the juice expressed from them, mixed with an equal weight of sesame oil, and cooked on a moderate fire till all the water has evaporated and only oil is left. This is cleaned and preserved in a phial for use. If green leaves are not available, dry leaves

may be steeped overnight in sixteen times their weight of water, boiled in the morning and, when only one fourth of the water is left, strained, mixed with an equal weight of sesame oil and cooked till only the oil is left behind.

Use of tobacco smoke : Smoke from tobacco collects on that part of hubble-bubble where the bowl is set ; this deposit is scraped off, collected and an equal weight of soap mixed with it and made into a pill. This pill is rubbed in two drops of water, and applied to the eyes by means of a pencil to cure night-blindness. A few applications are effective.

TULSI

Bol. Name : Ocimum Basilicum, Linn.

Other Names : *Bengali-Babui-tulsi, Gujrati-Sahje, Hindustani-Tulsi, Karnataki-Ram-Kasturi, Kashmiri-Hazbo, Murathi-Sabza, Sanskrit-Bisva-Tulsi, Sindhi-Sabajhi-Telugu-Bhu-tulsi.*

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Turmeric is also useful in case of gonorrhoea. Equal weight of turmeric and embelic myrobalans (amla) are finely ground, sifted and mixed with an equal weight of brown sugar. Seven mashas of this powder are taken for seven days along with milk or water.

Turmeric kills intestinal worms. For this purpose it is boiled in water and given to drink, or it is powdered and taken along with a little warm water.

In case of catarrh running for several days, smoke of turmeric introduced in the nose and throat stops it and cures the cold.

After leeching the bite of the leeches is smeared with turmeric powder to stop bleeding from it and prevent fouling. Turmeric is also useful for common sores. On dusting them with a fine powder of it the foul matter is removed and cure accelerated.

Turmeric removes weakness of eyesight, clears nebula and macula of the eyes. A knot of turmeric is introduced inside a lemon and stood till the lemon is dried. Then it is placed inside a second lemon till dry. In this way it is introduced in at least 3 lemons. This turmeric is rubbed in a little water and applied to the eyes by means of a pencil. Turmeric is also useful for sore eyes. Powdered turmeric is boiled in water, strained and 2-4 drops of it dropped into the eyes. The pain and redness soon disappear.

TURPENTINE OIL

It is a well-known oil. It has many uses. Here only such uses are mentioned as can easily be applied by everybody.

Five tolas of oil of turpentine are mixed with one tola of camphor dissolved in it. This oil is useful in several

complaints. If there is pain in the chest or ribs or waist or joints, it is relieved by rubbing it in. Applied to the ring-worm it cures it. If a wound is infested with worms its application kills them and cures the wound whether on the human or animal body. If a child is suffering from thread-worm the parasite is killed by its application. By instilling a few drops of it into the nose the worms inside it are killed and expelled. Oil of turpentine alone, without camphor, is also capable of giving relief in these conditions.

VINEGAR

Vinegar is generally prepared from the juice of sugar-cane. It is found in almost all the village households. It is a very useful item. It helps to digest food and increases appetite. It alleviates preponderance of the bilious humour in the body ; therefore it is generally used in the hot and rainy seasons as such or as made into pickles. Its use protects against such epidemic diseases as cholera, plague and malarial fever.

Onion is shredded and placed in vinegar, some salt and chillies are added and then used as a relish along with food. It serves as an appetizer and hastens the digestion of food and protects against the above diseases.

Vinegar allays heat and cools. Headache due to heat is relieved by placing a pad of cloth soaked in a mixture of vinegar and rose-water on the forehead. In case of delirium due to high fever repeated application of a pad of cloth soaked in a mixture of vinegar and rose-water on the head proves useful,

In case of earache or worms infesting the ear, vinegar dropped into the ear allays the pain and kills the worms.

In case of toothache due to heat or bleeding from the teeth washing the mouth with vinegar is useful.

Eight chhatanks of vinegar are cooked with one seer of sugar on slow fire till a thick syrup is formed. This is "sikanjbeen" (oxymel). In case of bilious fevers, to allay thirst 2-3 tolas of sikanjbeen is mixed with water and given to drink, fever is also reduced thereby. Nausea and vomiting are also relieved.

VIOLET FLOWERS (Gulbanafsha)

Bot. Name : Viola odorata, Litn.

Other Names : *Bengali-Banosa, Gujrati-Banaphsa, Hindustani-Banafsha, Marathi-Bagabanosa, Sanskrit-Vanapsa, Tamil-Vayilethe.*

Violets grow in Kashmir but the dry herb is available in every village and town in India.

The herb is specially effective in fevers, cold, and catarrh, pleurisy, pneumonia, cough. It relieves constipation.

One tola of the flowers, 11 grains of pepper and 2 tolas of sugar are boiled in 6 chhatanks of water. When one half of it is left behind, it is strained and drunk lukewarm. Perspiration will break out and relief obtained from cold, catarrh, or fever accompanying it or cough, sore throat, pain in the chest or ribs.

Six mashas of gulbanafsha and 5 grains of pepper ground together, mixed with 6 mashas of brown su-

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Six mashas of gulbanafsha and 5 grains of pepper are ground together, mixed with 6 mashas of brown sugar and

a powder. Excessive salivation is also cured thereby. Thrush is also relieved by washing the mouth with a decoction of this herb.

WILD MARJORAM (Marwa)

Bot. Name : Origanum Majorana, Linn.

Other Names : *Bengali-Murru, Hindustani-Murwa, Marathi-Marwa, Sanskrit-Marubaka, Tamil-Marru, Telugu-Maruvamu.*

Marwa is a variety of ocimum (raihan, tulsi). The plant grows up to one yard in height. Its leaves have a peculiar smell. The flowers are of violet colour and grow in bunches. The seeds are small and black. The plant is grown in gardens and houses.

Marwa induces appetite, kills intestinal worms, removes flatulence and stomachache. Worms infesting the nose or ears are killed by dropping the juice of its leaves on them. Application of lukewarm plaster of ground leaves of it on the testicles allays their pain.

ZAMINQAND (Yam)

Bot. Name : Dioscorea Bulbifera, Linn.

Other Names : *Bengali-Banalu, Gujrati-Suariya, Hindustani-Zaminqand, Karnataki-Heggenasu, Marathi-Gathalu, Goradu, Sanskrit-Shukari, Tamil-Karu-karinda, Telugu-Chedupaddudumpa.*

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